Author Search

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=> FILE CAPLUS
FILE 'CAPLUS' ENTERED AT 15:37:30 ON 07 JUN 2007
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FILE COVERS 1907 - 7 Jun 2007  VOL 146 ISS 24
FILE LAST UPDATED: 6 Jun 2007  (20070606/ED)

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They are available for your review at:

http://www.cas.org/infopolicy.html
'OBI' IS DEFAULT SEARCH FIELD FOR 'CAPLUS' FILE

=> D QUE L16
L9                STR
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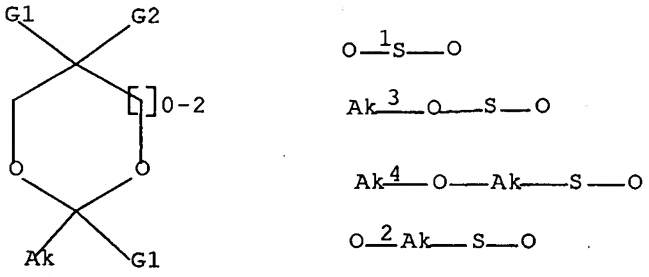


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G1 H,Me
G2 [@1],[@2],[@3],[@4]

Structure attributes must be viewed using STN Express query preparation:
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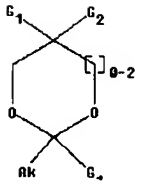
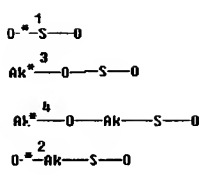
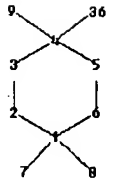
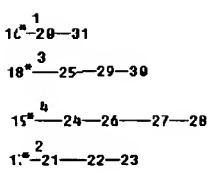

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7 8 9 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 36
ring nodes :
1 2 3 4 5 6
chain bonds :
1-7 1-8 4-9 4-36 16-20 17-21 18-25 19-24 20-31 21-22 22-23 24-26 25-29
26-27 27-28 29-30
ring bonds :
1-2 1-6 2-3 3-4 4-5 5-6
exact/norm bonds :
1-2 1-6 1-7 1-8 2-3 3-4 4-5 4-9 4-36 5-6 16-20 17-21 18-25 19-24 20-
31
21-22 22-23 24-26 25-29 26-27 27-28 29-30

G1:H,CH3

G2:[*1],[*2],[*3],[*4]

Connectivity :
7:1 E exact RC ring/chain 21:2 E exact RC ring/chain 26:2 E exact RC ring/chain

Match level :
1:Atom 2:Atom 3:Atom 4:Atom 5:Atom 6:Atom 7:CLASS 8:CLASS 9:CLASS 16:CLASS
17:CLASS 18:CLASS 19:CLASS 20:CLASS 21:CLASS 22:CLASS 23:CLASS 24:CLASS
25:CLASS 26:CLASS
27:CLASS 28:CLASS 29:CLASS 30:CLASS 31:CLASS 36:CLASS

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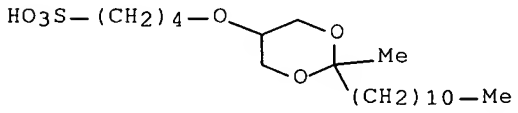
L16	1	SEA	FILE=CAPLUS	ABB=ON PLU=ON	(L13 OR L14 OR L15) AND L12

=> D IBIB ED ABS L16 HITSTR 1

L16 ANSWER 1 OF 1 CAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 2003:972310 CAPLUS Full-text
DOCUMENT NUMBER: 140:17749
TITLE: Destructible surfactants and use in small molecule analysis
INVENTOR(S): **Mallet, Claude**; Russel, Reb J., II; **Yardley, Kurt**
PATENT ASSIGNEE(S): Waters Investments Limited, USA
SOURCE: PCT Int. Appl., 45 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

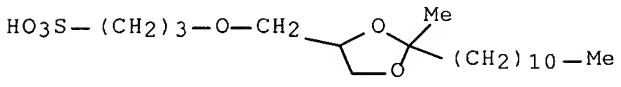
PATENT NO.	KIND	DATE	APPLICATION NO.		DATE
WO 2003102536	A2	20031211	WO 2003-US16819		20030530
WO 2003102536	A3	20040902			
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW					
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG					
AU 2003234681	A1	20031219	AU 2003-234681		20030530
US 2006094000	A1	20060504	US 2005-516419		20050829
PRIORITY APPLN. INFO.:			US 2002-385018P	P	20020531
			WO 2003-US16819	W	20030530

OTHER SOURCE(S): MARPAT 140:17749
ED Entered STN: 14 Dec 2003
AB The anionic surfactants have a dioxolane or dioxane functional group that enable degradation of the surfactant under acidic conditions. Using the anionic surfactants in a variety of anal. applications relates to samples containing small mols.
IT **308818-10-2P 308818-11-3P**
RL: BUU (Biological use, unclassified); IMF (Industrial manufacture); BIOL (Biological study); PREP (Preparation); USES (Uses)
(surfactant; anionic surfactants used in small mol. detection)
RN 308818-10-2 CAPLUS
CN 1-Butanesulfonic acid, 4-[(2-methyl-2-undecyl-1,3-dioxan-5-yl)oxy]- (9CI) (CA INDEX NAME)



RN 308818-11-3 CAPLUS

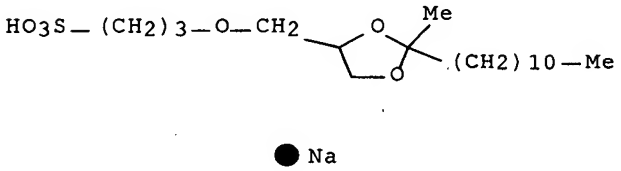
CN 1-Propanesulfonic acid, 3-[(2-methyl-2-undecyl-1,3-dioxolan-4-yl)methoxy]- (9CI) (CA INDEX NAME)



IT **308818-13-5P**
RL: BUU (Biological use, unclassified); IMF (Industrial manufacture); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation); USES (Uses)
(surfactant; anionic surfactants used in small mol. detection)

RN 308818-13-5 CAPLUS

CN 1-Propanesulfonic acid, 3-[(2-methyl-2-undecyl-1,3-dioxolan-4-yl)methoxy]-, sodium salt (9CI) (CA INDEX NAME)



Structure Search

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=> D QUE L21
L9                STR
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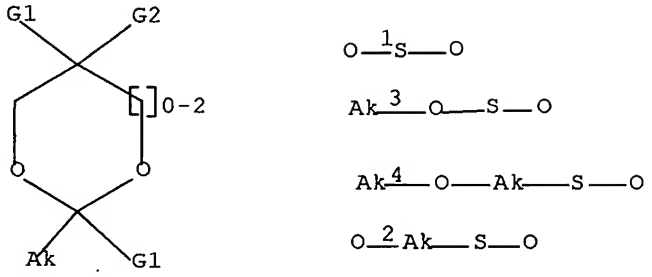


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G1 H,Me
G2 [@1],[@2],[@3],[@4]

Structure attributes must be viewed using STN Express query preparation.
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L17           16 SEA FILE=CAPLUS ABB=ON  PLU=ON  L12 AND P/DT
L18           14 SEA FILE=CAPLUS ABB=ON  PLU=ON  L17 AND (PRY<=2003 OR AY<=2003
                 OR PY<=2003)
L19           44 SEA FILE=CAPLUS ABB=ON  PLU=ON  L12 NOT L17
L20           34 SEA FILE=CAPLUS ABB=ON  PLU=ON  L19 AND PY<=2003
L21           48 SEA FILE=CAPLUS ABB=ON  PLU=ON  (L18 OR L20)


=> S L21 NOT L16
L22           47 L21 NOT L16

=> D IBIB ED ABS HITSTR L22 1-47

L22  ANSWER 1 OF 47  CAPLUS  COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER:         2003:972250  CAPLUS  Full-text
DOCUMENT NUMBER:          140:25191
TITLE:                    Destructible surfactants and uses thereof
INVENTOR(S):              Bouvier, Edouard S. P.; Copton, Bruce John; Gebler,
                          John C.; Gilar, Martin; Yu, Ying-Qing; Lee, Peter Jeng
                          Jong; Brown, Elizabeth K.
PATENT ASSIGNEE(S):       Waters Investments Limited, USA
SOURCE:                   PCT Int. Appl., 60 pp.
                          CODEN: PIXXD2
DOCUMENT TYPE:            Patent
LANGUAGE:                 English
FAMILY ACC. NUM. COUNT:   1
PATENT INFORMATION:

     PATENT NO.           KIND   DATE        APPLICATION NO.         DATE
     ---------------      ----   --------    --------------------    --------
     WO 2003102225         A1    20031211    WO 2003-US16820         20030530 <--
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             CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH,
             GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR,
             LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM,
             PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, TJ, TM, TN, TR, TT,
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TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG

AU 2003234682	A1	20031219	AU 2003-234682	20030530 <--
US 2006057659	A1	20060316	US 2005-516418	20050513 <--
PRIORITY APPLN. INFO.:			US 2002-385021P	P 20020531 <--
			WO 2003-US16820	W 20030530 <--

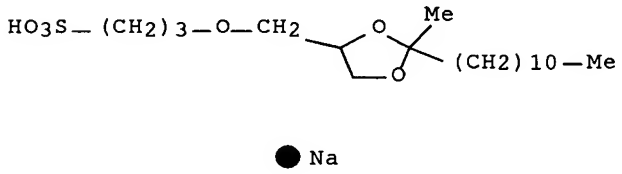
ED Entered STN: 14 Dec 2003

AB The present invention provides methods for enhancing chemical reactions of mols., e.g., biomols., with destructible surfactants. The chemical reactions may involve and/or be associate with anal., e.g., solubilizing, separating, purifying and/or characterizing the mols. In one aspect, the anionic surfactants of the present invention may be selectively broken up at relatively low pH. The resulting breakdown products of the surfactants may be removed from the mol./sample with relative ease. The invention has applicability in a variety of anal. techniques.

IT **308818-13-5P 308818-14-6P**
RL: ARU (Analytical role, unclassified); SPN (Synthetic preparation); ANST (Analytical study); PREP (Preparation)
(destructible surfactants and uses thereof)

RN 308818-13-5 CAPLUS

CN 1-Propanesulfonic acid, 3-[(2-methyl-2-undecyl-1,3-dioxolan-4-yl)methoxy]-, sodium salt (9CI) (CA INDEX NAME)



RN 308818-14-6 CAPLUS

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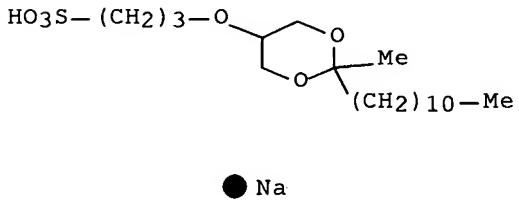
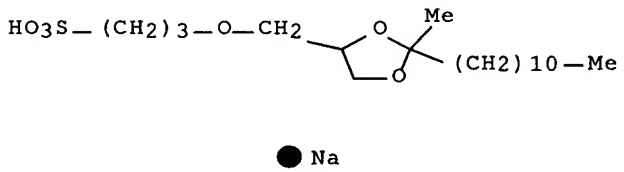


REFERENCE COUNT: 1 THERE ARE 1 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L22 ANSWER 2 OF 47 CAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 2003:747140 CAPLUS Full-text
DOCUMENT NUMBER: 139:377421

TITLE: Enzyme-friendly, mass spectrometry-compatible surfactant for in-solution enzymatic digestion of proteins
AUTHOR(S): Yu, Ying-Qing; Gilar, Martin; Lee, Peter J.; Bouvier, Edouard S. P.; Gebler, John C.
CORPORATE SOURCE: Life Sciences Research and Development, Waters Corporation, Milford, MA, 01757, USA
SOURCE: Analytical Chemistry (**2003**), 75(21), 6023-6028
CODEN: ANCHAM; ISSN: 0003-2700
PUBLISHER: American Chemical Society
DOCUMENT TYPE: Journal
LANGUAGE: English
ED Entered STN: 24 Sep 2003
AB Improved in-solution tryptic digestion of proteins in terms of speed and peptide coverage was achieved with the aid of a novel acid-labile anionic surfactant (ALS). Unlike SDS, ALS solubilizes proteins without inhibiting trypsin or other common endopeptidases activity. Trypsin activity was evaluated in the presence of various denaturants; little or no decrease in proteolytic activity was observed in 0.1-1% ALS solns. (w/v). Sample preparation prior to mass spectrometry and liquid chromatog. anal. consists of sample acidification. ALS degrades rapidly at low-pH conditions, which eliminates surfactant-caused interference with anal. Described methodol. combines the advantages of protein solubilization, rapid digestion, high peptide coverages, and easy sample preparation for mass spectrometry and liquid chromatog. analyses.
IT **308818-13-5**
RL: ARU (Analytical role, unclassified); RCT (Reactant); ANST (Analytical study); RACT (Reactant or reagent)
(enzyme-friendly, mass spectrometry-compatible surfactant for in-solution enzymic digestion of proteins)
RN 308818-13-5 CAPLUS
CN 1-Propanesulfonic acid, 3-[(2-methyl-2-undecyl-1,3-dioxolan-4-yl)methoxy]-, sodium salt (9CI) (CA INDEX NAME)

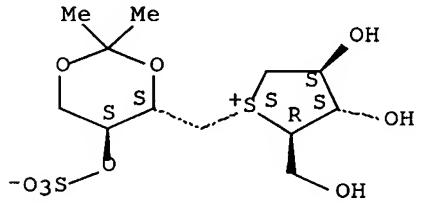


REFERENCE COUNT: 26 THERE ARE 26 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L22 ANSWER 3 OF 47 CAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 2003:590191 CAPLUS Full-text
DOCUMENT NUMBER: 140:42373
TITLE: Improved syntheses of the naturally occurring glycosidase inhibitor salacinol
AUTHOR(S): Ghavami, Ahmad; Sadalapure, Kashinath S.; Johnston, Blair D.; Lobera, Mercedes; Snider, Barry B.; Pinto, B. Mario
CORPORATE SOURCE: Department of Chemistry, Simon Fraser University, Burnaby, BC, V5A 1S6, Can.

SOURCE: Synlett (**2003**), (9), 1259-1262
CODEN: SYNLES; ISSN: 0936-5214
PUBLISHER: Georg Thieme Verlag
DOCUMENT TYPE: Journal
LANGUAGE: English
OTHER SOURCE(S): CASREACT 140:42373
ED Entered STN: 01 Aug 2003
AB Improved syntheses of the naturally occurring sulfonium ion, salacinol are described. Salacinol is one of the active principles in the aqueous exts. of Salacia reticulata that are traditionally used in Sri Lanka and India for the treatment of Type 2 Diabetes. The synthetic strategy relies on the nucleophilic attack of 2,3,5-tri-O-benzyl- or 2,3,5-tri-O-p-methoxybenzyl-1,4-anhydro-4-thio-D-arabinitol at the least hindered carbon of benzylidene-protected L-erythritol-1,3-cyclic sulfate in 1,1,1,3,3,3-hexafluoro-2-propanol as solvent. The reactions are compared to those with the benzyl-protected L-erythritol-1,3-cyclic sulfate and also to those in acetone and 2-propanol. Excellent yields are obtained for the reactions with the benzylidene-protected cyclic sulfate. The synthetic route employing p-methoxybenzyl ether protecting groups is advantageous since all protecting groups in the adduct may be removed with trifluoroacetic acid to yield salacinol, thereby obviating the problematic deprotection of benzyl ethers by hydrogenolysis.
IT **438576-21-7P**
RL: SPN (Synthetic preparation); PREP (Preparation)
(improved preparation of salacinol exploiting the solvent effects of 1,1,1,3,3,3-hexafluoroisopropanol and using p-methoxybenzyl ether protecting groups)
RN 438576-21-7 CAPLUS
CN D-Arabinitol, 1,4-dideox-1,4-[(S)-[[(4S,5S)-2,2-dimethyl-5-(sulfooxy)-1,3-dioxan-4-yl]methyl]episulfoniumylidene]-, inner salt (9CI) (CA INDEX NAME)

Absolute stereochemistry.



REFERENCE COUNT: 12 THERE ARE 12 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L22 ANSWER 4 OF 47 CAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 2003:346818 CAPLUS Full-text
DOCUMENT NUMBER: 138:323055
TITLE: Manufacture of novel sulfate salts of cis- and trans-2-alkyl-5-hydroxy-1,3-dioxanes
INVENTOR(S): Piasecki, Andrzej; Burczyk, Bogdan; Sokolowski, Adam; Kotlewska, Urszula
PATENT ASSIGNEE(S): Politechnika Wroclawska, Pol.
SOURCE: Pol., 6 pp.
CODEN: POXXA7
DOCUMENT TYPE: **Patent**
LANGUAGE: Polish

FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PL 177120	B1	19990930	PL 1995-308929	19950602 <--

PRIORITY APPLN. INFO.: PL 1995-308929 19950602 <--
OTHER SOURCE(S): MARPAT 138:323055
ED Entered STN: 08 May 2003
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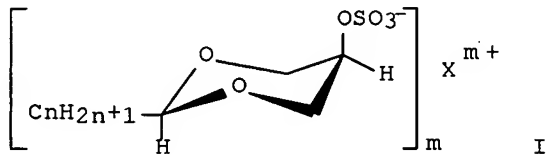

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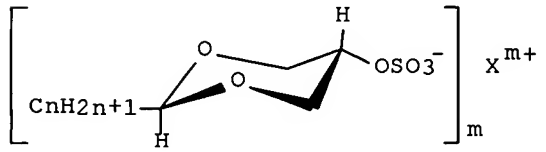


II

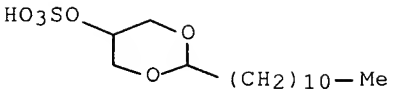
AB Surface-active title salts (I and II; X = Li, K, Cs, Mg, Ca, Ba, ammonium, pyridinium; m = 1, 2; n = 7-13) were manufactured by reacting the parent cis- and/or trans-2-(C7-13-alkyl)-5-hydroxy-1,3-dioxanes with ClSO3H in CCl4 in the presence of pyridine, or with SO3/pyridine complex, then removing the solvent and neutralizing the residue with aqueous alc. solution or suspension of alkali metal or alkaline earth metal hydroxide, carbonate or bicarbonate, or NH4OH. For example, adding 0.0464 mol of SO3/pyridine complex at ambient temperature in portions to a stirred solution of 0.0387 mol of a mixture of cis- and trans-2-undecyl-5-hydroxy-1,3-dioxane in 0.070 dm3 CCl4 and 2 + 10-3 dm3 pyridine, stirring the mixture for 1 h at ambient temperature and 6-8 h at .apprx.310°K gave 89% mol.% of a mixture of cis- and trans-2-undecyl-1,3-dioxane-5-sulfate pyridinium salts, m. 372-376°K and having Krafft point <293° (1% aqueous solution).

IT **512203-78-0P 512203-80-4P 512203-82-6P**
512203-84-8P 512203-86-0P
RL: IMF (Industrial manufacture); PREP (Preparation)
(cis- and trans-isomer mixture; manufacture of novel sulfate salts of cis- and
trans-alkyl(hydroxy)dioxanes)

RN 512203-78-0 CAPLUS
CN 1,3-Dioxan-5-ol, 2-undecyl-, hydrogen sulfate, compd. with pyridine (1:1) (9CI) (CA INDEX NAME)

CM 1

CRN 512203-77-9
CMF C15 H30 O6 S



CM 2

CRN 110-86-1
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RN 512203-80-4 CAPLUS
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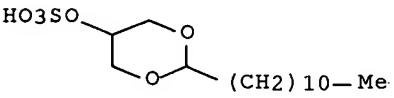

●1/2 Ca

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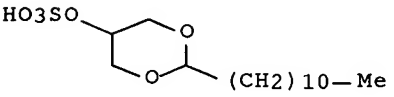

●1/2 Mg

RN 512203-84-8 CAPLUS
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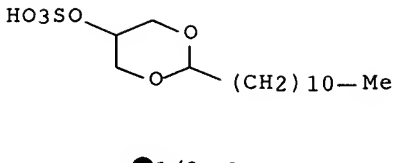

●1/2 Ba

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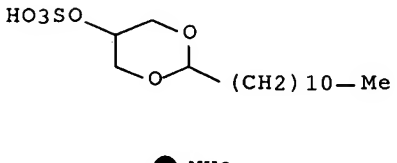
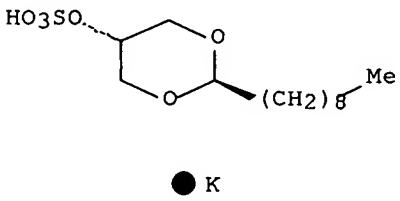


● NH3

IT **259738-92-6P 259738-94-8P 512203-89-3P 512204-29-4P**
RL: IMF (Industrial manufacture); PREP (Preparation)
(manufacture of novel sulfate salts of cis- and trans-alkyl(hydroxy)dioxanes)
RN 259738-92-6 CAPLUS
CN 1,3-Dioxan-5-ol, 2-nonyl-, hydrogen sulfate, potassium salt, trans- (9CI) (CA INDEX NAME)

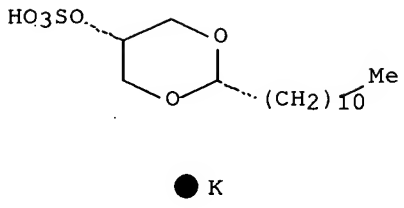
Relative stereochemistry.



● K

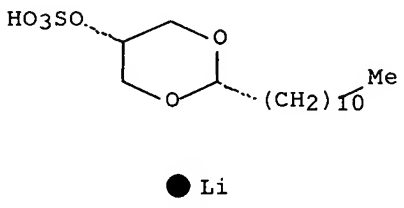
RN 259738-94-8 CAPLUS
CN 1,3-Dioxan-5-ol, 2-undecyl-, hydrogen sulfate, potassium salt, cis- (9CI) (CA INDEX NAME)

Relative stereochemistry.



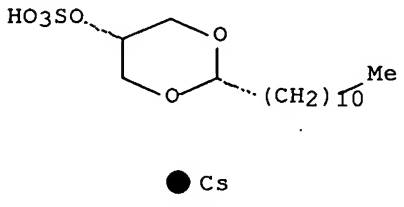
RN 512203-89-3 CAPLUS
CN 1,3-Dioxan-5-ol, 2-undecyl-, hydrogen sulfate, lithium salt, cis- (9CI) (CA INDEX NAME)

Relative stereochemistry.



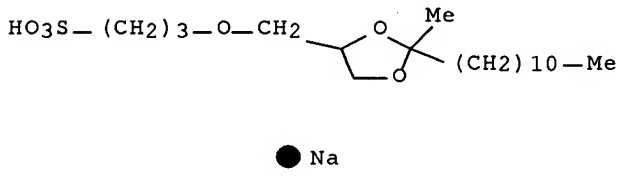
RN 512204-29-4 CAPLUS
CN 1,3-Dioxan-5-ol, 2-undecyl-, hydrogen sulfate, cesium salt, cis- (9CI) (CA INDEX NAME)

Relative stereochemistry.



L22 ANSWER 5 OF 47 CAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 2003:237291 CAPLUS Full-text
DOCUMENT NUMBER: 140:2466
TITLE: Sodium dodecyl sulfate versus acid-labile surfactant gel electrophoresis: Comparative proteomic studies on rat retina and mouse brain
AUTHOR(S): Konig, Simone; Schmidt, Oliver; Rose, Karin; Thanos, Solon; Besselmann, Michael; Zeller, Martin
CORPORATE SOURCE: Integrated Functional Genomics, Interdisciplinary Clinical Research Center, University Eye Hospital Munster, University of Munster, Germany
SOURCE: Electrophoresis (**2003**), 24(4), 751-756

CODEN: ELCTDN; ISSN: 0173-0835
PUBLISHER: Wiley-VCH Verlag GmbH & Co. KGaA
DOCUMENT TYPE: Journal
LANGUAGE: English
ED Entered STN: 27 Mar 2003
AB A long-chain derivative of 1,3-dioxolane sodium propyloxy sulfate, with similar denaturing and electrophoretic properties as SDS, and facilitated protein identification following polyacrylamide gel electrophoresis (PAGE) for Coomassie-stained protein bands, has been tested. Comparative acid-labile surfactant/sodium dodecyl sulfate two-dimensional (ALS/SDS 2-D)-PAGE expts. of lower abundant proteins from the proteomes of regenerating rat retina and mouse brain show that peptide recovery for mass spectrometry (MS) mapping is significantly enhanced using ALS leading to more successful database searches. ALS may influence some procedures in proteomic anal. such as the determination of protein content and methods need to be adjusted to that effect. The promising results of the use of ALS in bioanalytics call for detailed physicochem. investigations of surfactant properties.
IT **308818-13-5**
RL: ARU (Analytical role, unclassified); NUU (Other use, unclassified); ANST (Analytical study); USES (Uses)
(comparative proteomic studies on rat retina and mouse brain using SDS vs. acid-labile surfactant gel electrophoresis)
RN 308818-13-5 CAPLUS
CN 1-Propanesulfonic acid, 3-[(2-methyl-2-undecyl-1,3-dioxolan-4-yl)methoxy]-, sodium salt (9CI) (CA INDEX NAME)



REFERENCE COUNT: 24 THERE ARE 24 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L22 ANSWER 6 OF 47 CAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 2003:72137 CAPLUS Full-text
DOCUMENT NUMBER: 138:238141
TITLE: Novel Iminium Ion Equivalents Prepared through C-H Oxidation for the Stereocontrolled Synthesis of Functionalized Propargylic Amine Derivatives
AUTHOR(S): Fleming, James J.; Fiori, Kristin Williams; Du Bois, J.
CORPORATE SOURCE: Department of Chemistry, Stanford University, Stanford, CA, 94305-5080, USA
SOURCE: Journal of the American Chemical Society (**2003**), 125(8), 2028-2029
CODEN: JACSAT; ISSN: 0002-7863
PUBLISHER: American Chemical Society
DOCUMENT TYPE: Journal
LANGUAGE: English
OTHER SOURCE(S): CASREACT 138:238141
ED Entered STN: 30 Jan 2003
GI

* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT *

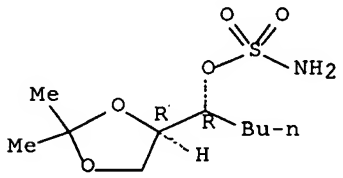
AB Access to stereochem. complex, polyfunctionalized amine derivs. is made possible using novel oxathiazinane N,O-acetals, e.g. I and II, as starting materials. These heterocycles are prepared via intramol. sulfamate ester C-H insertion with a Rh2+-carboxylate catalyst and PhI(OAc)2 as the terminal oxidant. Such compds. function as unique iminium ion equivalent to which nucleophilic alkynylzinc reagents add smoothly in the presence of BF3•OEt2. The coupled products, e.g. III and IV, are isolated in high yield (63-92%) and with good levels of diastereoinduction (6-20:1). The alkyne-substituted oxathiazinanes serve as versatile building blocks and may be further manipulated through nucleophilic ring-opening reactions of the sulfamate core. The efficient construction of the 1,7,8-trihydroxyindolizidine V in six steps and in 34% overall yield highlights the power of these combined methods for synthesis.

IT **501683-48-3P**
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(stereoselective preparation of propargylic amines via alkynylation of oxathiazinane acetals prepared by Rh-catalyzed cyclization of sulfamate esters)

RN 501683-48-3 CAPLUS

CN Sulfamic acid, (1R)-1-[(4R)-2,2-dimethyl-1,3-dioxolan-4-yl]pentyl ester, rel- (9CI) (CA INDEX NAME)

Relative stereochemistry.



REFERENCE COUNT: 21 THERE ARE 21 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L22 ANSWER 7 OF 47 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2002:577434 CAPLUS Full-text

DOCUMENT NUMBER: 137:291147

TITLE: Identification of proteins from two-dimensional polyacrylamide gels using a novel acid-labile surfactant

AUTHOR(S): Ross, Andrew R. S.; Lee, Peter J.; Smith, Duncan L.; Langridge, James I.; Whetton, Anthony D.; Gaskell, Simon J.

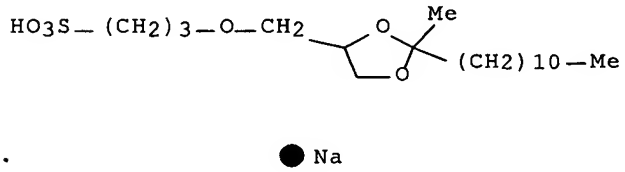
CORPORATE SOURCE: Plant Biotechnology Institute, National Research Council of Canada, Saskatoon, SK, S7N 0W9, Can.

SOURCE: Proteomics (**2002**), 2(7), 928-936
CODEN: PROTC7; ISSN: 1615-9853

PUBLISHER: Wiley-VCH Verlag GmbH

DOCUMENT TYPE: Journal

LANGUAGE: English
ED Entered STN: 04 Aug 2002
AB Protein identification by peptide mass mapping usually involves digestion of gel-separated proteins with trypsin, followed by mass measurement of the resulting peptides by matrix-assisted laser desorption/ionization mass spectrometry (MALDI-MS). Pos. identification requires measurement of enough peptide masses to obtain a definitive match with sequence information recorded in protein or DNA sequence databases. However, competitive binding and ionization of residual surfactant introduced during PAGE (PAGE) can inhibit solid-phase extraction and MS anal. of tryptic peptides. We have evaluated a novel, acid-labile surfactant (ALS) as an alternative to sodium dodecylsulfate (SDS) for two-dimensional (2-D) PAGE separation and MALDI-MS mapping of proteins. ALS was substituted for SDS at the same concentration in buffers and gels used for 2-D PAGE. Manual and automated procedures for spot cutting and in-gel digestion were used to process Coomassie stained proteins for MS anal. Results indicate that substituting ALS for SDS during PAGE can significantly increase the number of peptides detected by MALDI-MS, especially for proteins of relatively low abundance. This effect is attributed to decomposition of ALS under acidic conditions during gel staining, destaining, peptide extraction and MS sample preparation Automated excision and digestion procedures reduce contamination by keratin and other impurities, further enhancing MS identification of gel separated proteins.
IT **308818-13-5P**
RL: NUU (Other use, unclassified); SPN (Synthetic preparation); PREP (Preparation); USES (Uses)
(identification of proteins from two-dimensional polyacrylamide gels using novel acid-labile surfactant)
RN 308818-13-5 CAPLUS
CN 1-Propanesulfonic acid, 3-[(2-methyl-2-undecyl-1,3-dioxolan-4-yl)methoxy]-, sodium salt (9CI) (CA INDEX NAME)



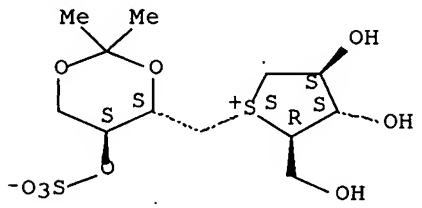
REFERENCE COUNT: 48 THERE ARE 48 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L22 ANSWER 8 OF 47 CAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 2002:480012 CAPLUS Full-text
DOCUMENT NUMBER: 137:63418
TITLE: Cyclic sulfonium compounds including salacinol as glucosidase inhibitors and their preparation
INVENTOR(S): Hashimoto, Hironobu; Yuasa, Hideya; Takada, Jun
PATENT ASSIGNEE(S): Rikogaku Shinkokai, Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 11 pp.
CODEN: JKXXAF
DOCUMENT TYPE: **Patent**
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2002179673	A	20020626	JP 2000-379453	20001213 <--
PRIORITY APPLN. INFO.:			JP 2000-379453	20001213 <--

OTHER SOURCE(S): CASREACT 137:63418
ED Entered STN: 26 Jun 2002
AB A process for preparation of cyclic sulfonium compds., useful as glucosidase inhibitors for treatment of diabetes, comprises (1) preparation of erythritol cyclic sulfate from D- or L-glucose, (2) preparation of compds. having a cyclic structure containing 4 C atoms and 1 S atom from D-xylose, (3) coupling of the product of (1) with the product of (2), and optionally (4) deprotection of OH-protecting group. Cyclic sulfonium compds. may also prepared by treating the product of (2) with alkyl halides. Detailed reaction schemes for every step are also described. 1,4-Epithio-D-arabinitol (I) was prepared in 17% yield from D-xylose with 9 steps. 1,3-O-isopropylidene-D-erythritol cyclic sulfate (II) was prepared in 30% yield from D-glucose with 5 steps. I was reacted with II through ring opening and the coupled product was deprotected to give salacinol in 45%. I was also reacted with MeI to give its S-Me derivative iodide, which inhibited glucosidase at IC60 0.3 mM.
IT **438576-21-7P**
RL: IMF (Industrial manufacture); RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation of cyclic sulfonium compds. such as salacinol as glucosidase inhibitors from glucose and xylose)
RN 438576-21-7 CAPLUS
CN D-Arabinitol, 1,4-dideoxy-1,4-[(S)-[[(4S,5S)-2,2-dimethyl-5-(sulfooxy)-1,3-dioxan-4-yl]methyl]episulfoniumylidene]-, inner salt (9CI) (CA INDEX NAME)

Absolute stereochemistry.



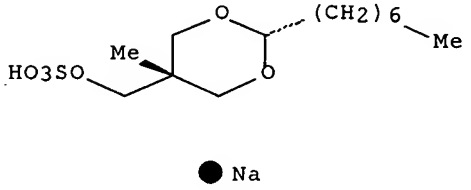
L22 ANSWER 9 OF 47 CAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 2002:59114 CAPLUS Full-text
DOCUMENT NUMBER: 136:249430
TITLE: Winsor-type microemulsions stabilized by mixtures of surfactants
AUTHOR(S): Zielonka, Barbara; Sokolowski, Adam
CORPORATE SOURCE: Wroclaw University of Technology, Wroclaw, Pol.
SOURCE: World Surfactants Congress, 5th, Firenze, Italy, May 29-June 2, 2000 (**2000**), 852-860. Comite Europeen des Agents de Surface et leurs Intermediaires Organiques: Brussels, Belg.
CODEN: 69BYUW
DOCUMENT TYPE: Conference; (computer optical disk)
LANGUAGE: English
ED Entered STN: 23 Jan 2002

AB We have undertaken investigations upon the behavior in Winsor microemulsion systems of surfactant mixts. Sodium n-alkyl sulfates, sulfonates, carboxylates, acetal-type surfactants and fluorinated amphiphiles-sodium carboxylate, fluorinated sugar-type derivative were used as addnl. surface-active agents, called "second surfactants". They were added to systems containing n-heptane, water, sodium diethylhexylsulfosuccinate (AOT) and NaCl in order to obtain transition from water-in-oil microemulsions (Winsor II) to oil-in-water ones (Winsor I). From interfacial tension measurements we determined the regions where Winsor I, Winsor II, and Winsor III occur and calculated the standard free energy of transition, Δ0tr, from the Winsor I to the Winsor III system. Addnl., the ΔG0tr contributions derived from all structural parts of the second surfactant mol., i.e. CH2, CF2, head group, were estimated

IT **139888-69-0 139888-70-3 139888-72-5**
186189-03-7 186189-04-8 186189-05-9
186189-06-0
RL: PRP (Properties); TEM (Technical or engineered material use); USES (Uses)
(Winsor-type microemulsions stabilized by mixts. of surfactants)

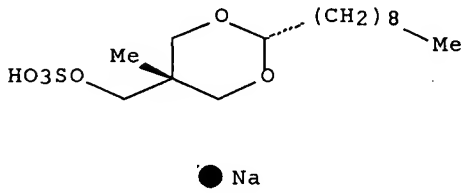
RN 139888-69-0 CAPLUS
CN 1,3-Dioxane-5-methanol, 2-heptyl-5-methyl-, hydrogen sulfate, sodium salt, cis- (9CI) (CA INDEX NAME)

Relative stereochemistry.



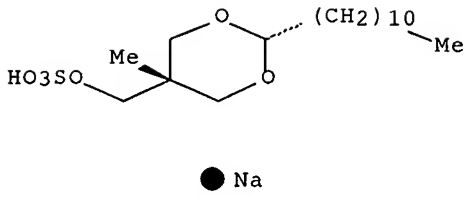
RN 139888-70-3 CAPLUS
CN 1,3-Dioxane-5-methanol, 5-methyl-2-nonyl-, hydrogen sulfate, sodium salt, cis- (9CI) (CA INDEX NAME)

Relative stereochemistry.



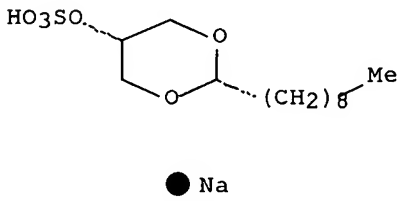
RN 139888-72-5 CAPLUS
CN 1,3-Dioxane-5-methanol, 5-methyl-2-undecyl-, hydrogen sulfate, sodium salt, cis- (9CI) (CA INDEX NAME)

Relative stereochemistry.



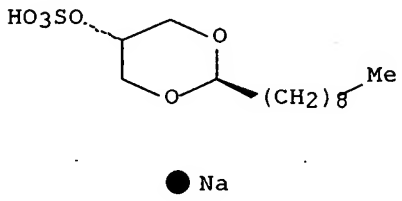
RN 186189-03-7 CAPLUS
CN 1,3-Dioxan-5-ol, 2-nonyl-, hydrogen sulfate, sodium salt, cis- (9CI) (CA INDEX NAME)

Relative stereochemistry.



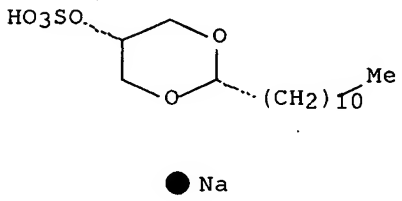
RN 186189-04-8 CAPLUS
CN 1,3-Dioxan-5-ol, 2-nonyl-, hydrogen sulfate, sodium salt, trans- (9CI) (CA INDEX NAME)

Relative stereochemistry.



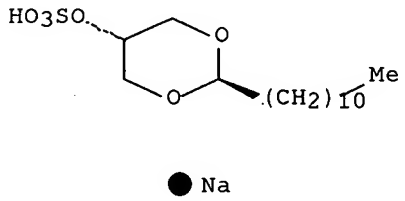
RN 186189-05-9 CAPLUS
CN 1,3-Dioxan-5-ol, 2-undecyl-, hydrogen sulfate, sodium salt, cis- (9CI) (CA INDEX NAME)

Relative stereochemistry.



RN 186189-06-0 CAPLUS
CN 1,3-Dioxan-5-ol, 2-undecyl-, hydrogen sulfate, sodium salt, trans- (9CI) (CA INDEX NAME)

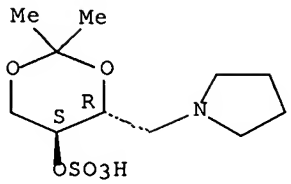
Relative stereochemistry.



REFERENCE COUNT: 12 THERE ARE 12 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

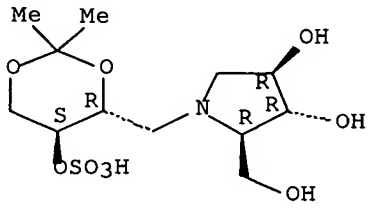
L22 ANSWER 10 OF 47 CAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 2001:812359 CAPLUS Full-text
DOCUMENT NUMBER: 136:167579
TITLE: Synthesis of a nitrogen analogue of salacinol and its α-glucosidase inhibitory activity
AUTHOR(S): Muraoka, Osamu; Ying, Shao; Yoshikai, Kazuya; Matsuura, Yoshiharu; Yamada, Eriko; Minematsu, Toshie; Tanabe, Genzoh; Matsuda, Hisashi; Yoshikawa, Masayuki
CORPORATE SOURCE: School of Pharmaceutical Sciences, Kinki University, Osaka, 577-8502, Japan
SOURCE: Chemical & Pharmaceutical Bulletin (**2001**), 49(11), 1503-1505
CODEN: CPBTAL; ISSN: 0009-2363
PUBLISHER: Pharmaceutical Society of Japan
DOCUMENT TYPE: Journal
LANGUAGE: English
OTHER SOURCE(S): CASREACT 136:167579
ED Entered STN: 08 Nov 2001
AB A nitrogen analog of the naturally occurring sulfonium ion salacinol, a potent α-glucosidase inhibitor isolated from the Ayruvedic medicine Salacia reticulata, was synthesized and its inhibitory activity against α-glucosidase tested. Substitution of the sulfur atom in salacinol with a nitrogen reduced the activity considerably. The solid-state stereostructure of the related compound 1'-(1-pyrrolidiniumyl)-2',4'-O- isopropylidene-1'-deoxy-L-erythritol-3'-sulfate was determined on the basis of single crystal X-ray measurement.
IT **396073-85-1P**
RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)
(crystal structure of;; synthesis of a nitrogen analog of salacinol and its α-glucosidase inhibitory activity)
RN 396073-85-1 CAPLUS
CN 1,3-Dioxan-5-ol, 2,2-dimethyl-4-(1-pyrrolidinylmethyl)-, hydrogen sulfate (ester), (4R,5S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



IT **396073-88-4P**
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(synthesis of a nitrogen analog of salacinol and its α-glucosidase inhibitory activity)
RN 396073-88-4 CAPLUS
CN 3,4-Pyrrolidinediol, 1-[[(4R,5S)-2,2-dimethyl-5-(sulfooxy)-1,3-dioxan-4-yl]methyl]-2-(hydroxymethyl)-, (2R,3R,4R)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

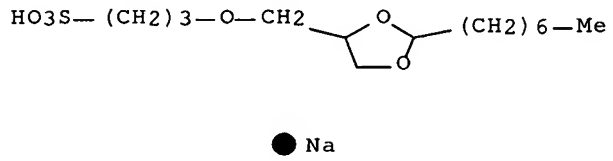


REFERENCE COUNT: 13 THERE ARE 13 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

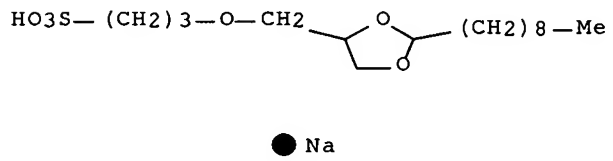
L22 ANSWER 11 OF 47 CAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 2001:699311 CAPLUS Full-text
DOCUMENT NUMBER: 136:202175
TITLE: Decomposition properties of sodium 3-[(2-alkyl-1,3-dioxolan-4-yl)methoxyl]-1-propanesulfonates
AUTHOR(S): Zhu, Hong-jun; Wang, Jin-tang; Xu, Feng
CORPORATE SOURCE: School of Science, Nanjing University of Chemical Technology, Nanjing, 210009, Peop. Rep. China
SOURCE: Jingxi Huagong (**2001**), 18(8), 443-444, 460
CODEN: JIHUFJ; ISSN: 1003-5214
PUBLISHER: Jingxi Huagong Bianjibu
DOCUMENT TYPE: Journal
LANGUAGE: Chinese
ED Entered STN: 26 Sep 2001
AB The decomposition properties of sodium 3-[(2-alkyl-1,3-dioxolan-4-yl)methoxyl]- 1-propanesulfonates [alkyl = heptyl (HDMPS), nonyl (NDMPS), undecyl (UDMPS)] in 0.1 mol/L HCl solution (25°) were measured by gas chromatog. The kinetics investigation showed that the decomposition reaction of these surfactants is pseudo-first-order. Their rate constant k and half-life t1/2(h):HDMPS 0.638, NDMPS 0.827, UDMPS 0.936.
IT **333952-53-7 333952-54-8 333952-55-9**
RL: PRP (Properties); RCT (Reactant); TEM (Technical or engineered material use); RACT (Reactant or reagent); USES (Uses)

(decomposition properties of sodium 3-[(2-alkyl-1,3-dioxolan-4-yl)methoxyl]-
1-propanesulfonates as anionic surfactants)

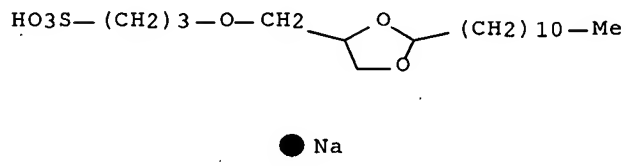
RN 333952-53-7 CAPLUS
CN 1-Propanesulfonic acid, 3-[(2-heptyl-1,3-dioxolan-4-yl)methoxy]-, sodium salt (9CI) (CA INDEX NAME)



RN 333952-54-8 CAPLUS
CN 1-Propanesulfonic acid, 3-[(2-nonyl-1,3-dioxolan-4-yl)methoxy]-, sodium salt (9CI) (CA INDEX NAME)



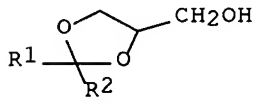
RN 333952-55-9 CAPLUS
CN 1-Propanesulfonic acid, 3-[(2-undecyl-1,3-dioxolan-4-yl)methoxy]-, sodium salt (9CI) (CA INDEX NAME)



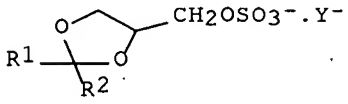
L22 ANSWER 12 OF 47 CAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 2000:865356 CAPLUS Full-text
DOCUMENT NUMBER: 134:29655
TITLE: Method for preparation of diglycerin from diglycerin ketal of acetal derivatives
INVENTOR(S): Murata, Daiya; Imanaka, Takehiro; Nagumo, Hiroshi
PATENT ASSIGNEE(S): Kao Corp., Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 5 pp.
CODEN: JKXXAF
DOCUMENT TYPE: **Patent**
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2000344705	A	20001212	JP 1999-157970	19990604 <--
PRIORITY APPLN. INFO.:			JP 1999-157970	19990604 <--

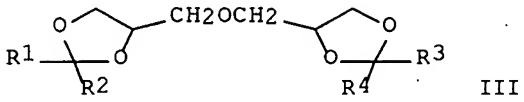
OTHER SOURCE(S): CASREACT 134:29655; MARPAT 134:29655
ED Entered STN: 12 Dec 2000
GI



I



II

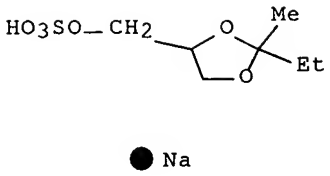


III

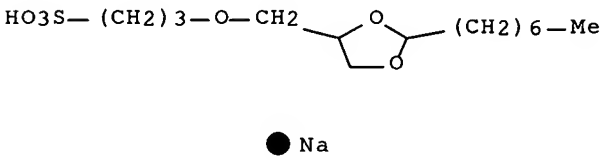
AB Diglycerin, HOCH2CH(OH)OCH2CH(OH)CH2OH, is prepared by reaction of glycerin ketal or acetal (I; R1, R2 = H, hydrocarbyl; or R1 and R2 are linked to each other to form a carbo cyclic ring) glycerin ketal or acetal sulfate salt (II; R3, R4 = H, hydrocarbyl; or R3 and R4 are linked to each other to form a carbo cyclic ring; Y+ = salt-forming cation) to give diglycerin ketal or acetal (III; R1, R2, R3, R4 = H, hydrocarbyl; or R1 and R2 or R3 and R4 are linked to each other to form a carbo cyclic ring) followed by deacetalization or deketalization. This process gives diglycerin of high purity which is useful as food additive or an intermediate for nonionic surfactants. Thus, 116.9 g glycerin Me Et ketone ketal, 20 mL pyridine, and 500 mL CCl4 were heated to 45° in a flask, followed by adding portionwise 127.3 g SO3-pyridine complex over a period of 3 h, and the resulting mixture was neutralized by adding 66.7 g 48% aqueous NaOH, 260 g H2O, and 900 g ethanol and evaporated to remove the solvent to give 219.9 g II (R3 = Et, R4 = Me, Y+ = Na+). The latter product and 116.9 g glycerin Me Et ketone ketal were added to a flask, followed by adding 66.7 g 48% aqueous NaOH and 650 mL xylene, and the resulting mixture was refluxed for etherification with azeotropic removal of water for 16 h to give 97.9 g III (R1 = R3 = Et, R2 = R4 = Me). The latter compound (60 g) was treated with p-toluenesulfonic acid and 3-5% steam per h was introduced with removing excess steam and Me Et ketone outside the system for 5 h and the resulting mixture was dehydrated at 90° and 6.66 kPa for 0.5 to give 41.0 g diglycerin (97.9% purity).

IT **311820-48-1P**
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation of diglycerin by etherification diglycerin ketal or acetal and its sulfate and deacetalization or deketalization of diglycerin ketal or acetal)

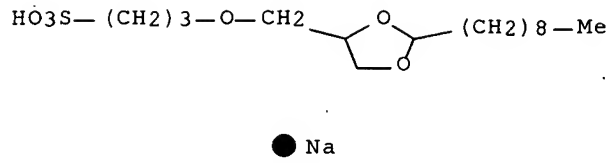
RN 311820-48-1 CAPLUS
CN 1,3-Dioxolane-4-methanol, 2-ethyl-2-methyl-, hydrogen sulfate, sodium salt (9CI) (CA INDEX NAME)



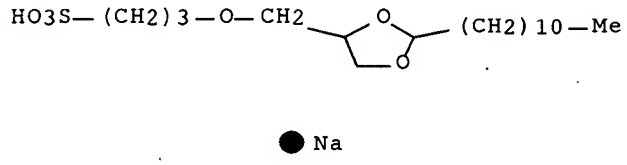
L22 ANSWER 13 OF 47 CAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 2000:835474 CAPLUS Full-text
DOCUMENT NUMBER: 134:297503
TITLE: Preparation of degradable sulfonate surfactants
AUTHOR(S): Zhu, Hong-jun; Wang, Jin-tang; Xu, Feng; Kong, Ai-wu
CORPORATE SOURCE: Department of Allied Chemistry, Nanjing University of Chemical Technology, Nanjing, 210009, Peop. Rep. China
SOURCE: Jingxi Huagong (**2000**), 17(10), 559-561, 566
CODEN: JIHUFJ; ISSN: 1003-5214
PUBLISHER: Jingxi Huagong Bianjibu
DOCUMENT TYPE: Journal
LANGUAGE: Chinese
ED Entered STN: 30 Nov 2000
AB A series of degradable sulfonate surfactants(III) {sodium 3-[(2-heptyl-1,3-dioxolan-4-yl) methoxy]-1-propanesulfonate; sodium 3-[(2-nonyl-1,3-dioxolan-4-yl) methoxy]-1-propanesulfonate; sodium 3-[(undecyl-1,3-dioxolan-4-yl) methoxy]-1-propanesulfonate} with 1,3-dioxolane ring were prepared by three steps. (a) a series of acetals (I) were prepared by reaction of aldehydes and tri-Et orthoformate at 8-10° under the catalysis of ammonium nitrate (50% yield), (b) the cyclic glycerol acetals(II) were prepared by transacetalation of I with glycerol at 110° (80% yield), (c) then the intermediates II reacted with inner ester of 3-hydroxypropanesulfonic acid and sodium hydroxide at 60-65° for 8 h to give III (90% yield). The structure identification was performed using elementary anal., IR and 1HNMR.
IT **333952-53-7P 333952-54-8P 333952-55-9P**
RL: SPN (Synthetic preparation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(degradable sulfonate surfactants; preparation of)
RN 333952-53-7 CAPLUS
CN 1-Propanesulfonic acid, 3-[(2-heptyl-1,3-dioxolan-4-yl)methoxy]-, sodium salt (9CI) (CA INDEX NAME)



RN 333952-54-8 CAPLUS
CN 1-Propanesulfonic acid, 3-[(2-nonyl-1,3-dioxolan-4-yl)methoxy]-, sodium salt (9CI) (CA INDEX NAME)



RN 333952-55-9 CAPLUS
CN 1-Propanesulfonic acid, 3-[(2-undecyl-1,3-dioxolan-4-yl)methoxy]-, sodium salt (9CI) (CA INDEX NAME)



L22 ANSWER 14 OF 47 CAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 2000:824508 CAPLUS Full-text
DOCUMENT NUMBER: 134:2339
TITLE: Destructible surfactants and uses thereof
INVENTOR(S): Lee, Peter Jeng Jong; Compton, Bruce J.
PATENT ASSIGNEE(S): Waters Investments Ltd., USA
SOURCE: PCT Int. Appl., 50 pp.
CODEN: PIXXD2
DOCUMENT TYPE: **Patent**
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

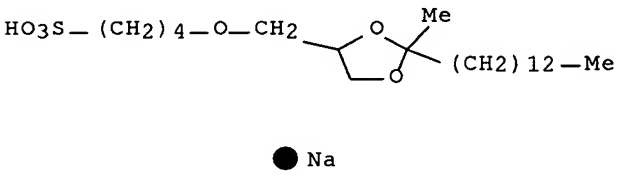
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2000070334	A1	20001123	WO 2000-US13028	20000512 <--
W: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
AU 2000048435	A	20001205	AU 2000-48435	20000512 <--
EP 1181537	A1	20020227	EP 2000-930651	20000512 <--
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO				

PRIORITY APPLN. INFO.: US 1999-134113P P 19990514 <--
WO 2000-US13028 W 20000512 <--
OTHER SOURCE(S): MARPAT 134:2339
ED Entered STN: 24 Nov 2000
AB Destructible surfactants and methods of using same are provided. The invention includes anionic surfactants having a dioxolane or dioxane functional group which enables the surfactant to be broken down under acidic

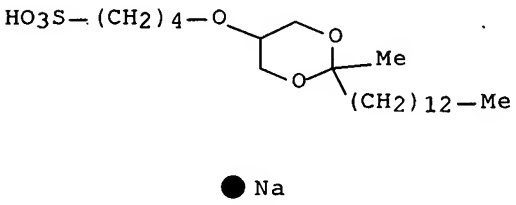
conditions. The invention also includes methods of making anionic surfactants and methods of using anionic surfactants in a variety of applications.

IT **138487-18-0 308818-17-9**
RL: NUU (Other use, unclassified); RCT (Reactant); RACT (Reactant or reagent); USES (Uses)
(destructible surfactants and uses thereof)

RN 138487-18-0 CAPLUS
CN 1-Butanesulfonic acid, 4-[(2-methyl-2-tridecyl-1,3-dioxolan-4-yl)methoxy]-, sodium salt (9CI) (CA INDEX NAME)

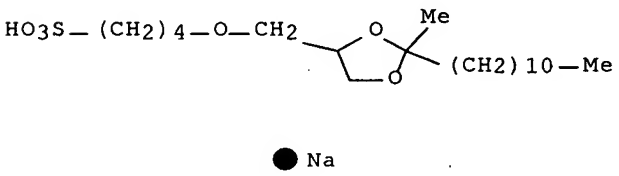


RN 308818-17-9 CAPLUS
CN 1-Butanesulfonic acid, 4-[(2-methyl-2-tridecyl-1,3-dioxan-5-yl)oxy]-, sodium salt (9CI) (CA INDEX NAME)



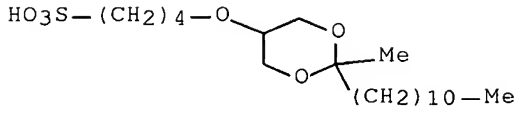
IT **138487-16-8P 308818-10-2P 308818-11-3P**
308818-13-5P 308818-14-6P 308818-15-7P
RL: NUU (Other use, unclassified); SPN (Synthetic preparation); PREP (Preparation); USES (Uses)
(destructible surfactants and uses thereof)

RN 138487-16-8 CAPLUS
CN 1-Butanesulfonic acid, 4-[(2-methyl-2-undecyl-1,3-dioxolan-4-yl)methoxy]-, sodium salt (9CI) (CA INDEX NAME)

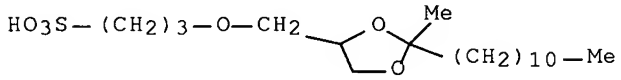


RN 308818-10-2 CAPLUS
CN 1-Butanesulfonic acid, 4-[(2-methyl-2-undecyl-1,3-dioxan-5-yl)oxy]- (9CI)

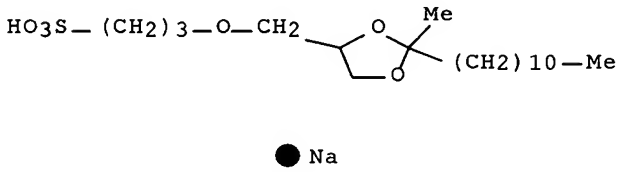
(CA INDEX NAME)



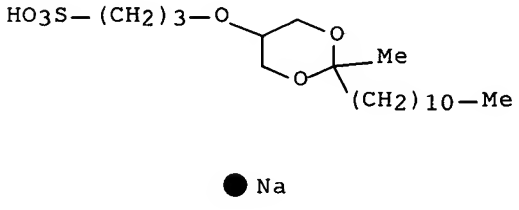
RN 308818-11-3 CAPLUS
CN 1-Propanesulfonic acid, 3-[(2-methyl-2-undecyl-1,3-dioxolan-4-yl)methoxy]- (9CI) (CA INDEX NAME)



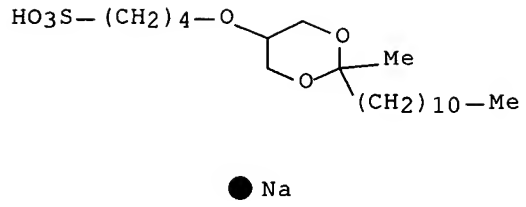
RN 308818-13-5 CAPLUS
CN 1-Propanesulfonic acid, 3-[(2-methyl-2-undecyl-1,3-dioxolan-4-yl)methoxy]-, sodium salt (9CI) (CA INDEX NAME)



RN 308818-14-6 CAPLUS
CN 1-Propanesulfonic acid, 3-[(2-methyl-2-undecyl-1,3-dioxan-5-yl)oxy]-, sodium salt (9CI) (CA INDEX NAME)



RN 308818-15-7 CAPLUS
CN 1-Butanesulfonic acid, 4-[(2-methyl-2-undecyl-1,3-dioxan-5-yl)oxy]-, sodium salt (9CI) (CA INDEX NAME)



REFERENCE COUNT: 3 THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

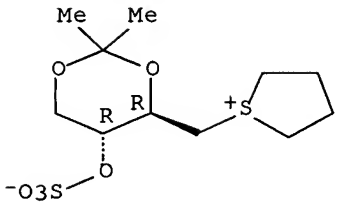
L22 ANSWER 15 OF 47 CAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 2000:564534 CAPLUS Full-text
DOCUMENT NUMBER: 133:310063
TITLE: Synthesis of salacinol
AUTHOR(S): Yuasa, H.; Takada, J.; Hashimoto, H.
CORPORATE SOURCE: Graduate School of Bioscience and Biotechnology, Department of Life Science, Tokyo Institute of Technology, Yokohama, 226-8501, Japan
SOURCE: Tetrahedron Letters (**2000**), 41(34), 6615-6618
CODEN: TELEAY; ISSN: 0040-4039
PUBLISHER: Elsevier Science Ltd.
DOCUMENT TYPE: Journal
LANGUAGE: English
OTHER SOURCE(S): CASREACT 133:310063
ED Entered STN: 16 Aug 2000

AB Salacinol, a new type of α-glucosidase inhibitor discovered from the antidiabetic herb, Salacia reticulata, was synthesized for the first time. Under the strategy that salacinol would be synthesized by the coupling reaction between 1,4-epithio-D-arabinitol and the cyclic sulfate of an erythritol derivative, the model coupling reactions between tetrahydrothiophene and versatile cyclic sulfate derivs. were undertaken. These expts. indicated that the 1,3-diol of the cyclic sulfate should be protected with the isopropylidene group, otherwise, even the benzylidene-protected cyclic sulfate decomposed during the reaction. Thus, the salacinol was synthesized using the cyclic sulfate of 1,3-O-isopypropylidene-D-erythritol. The resulting coupling product was deisopropylidenated to afford salacinol. A diastereomer of salacinol was also synthesized.

IT **302579-07-3P 302579-09-5P 302579-10-8P**
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation of salacinol by coupling of epithioarabinitol with cyclic sulfate of isopypropylidene-D-erythritol)

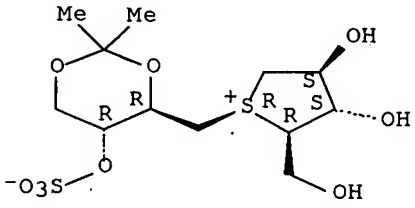
RN 302579-07-3 CAPLUS
CN Thiophenium, 1-[[(4R,5R)-2,2-dimethyl-5-(sulfooxy)-1,3-dioxan-4-yl]methyl]tetrahydro-, inner salt (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).



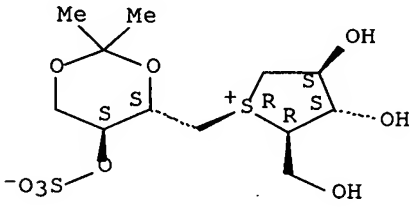
RN 302579-09-5 CAPLUS
CN D-Arabinitol, 1,4-dideoxy-1,4-[(R)-[[(4R,5R)-2,2-dimethyl-5-(sulfooxy)-1,3-dioxan-4-yl]methyl]episulfoniumylidene]-, inner salt (9CI) (CA INDEX NAME)

Absolute stereochemistry.



RN 302579-10-8 CAPLUS
CN D-Arabinitol, 1,4-dideoxy-1,4-[(R)-[[(4S,5S)-2,2-dimethyl-5-(sulfooxy)-1,3-dioxan-4-yl]methyl]episulfoniumylidene]-, inner salt (9CI) (CA INDEX NAME)

Absolute stereochemistry.

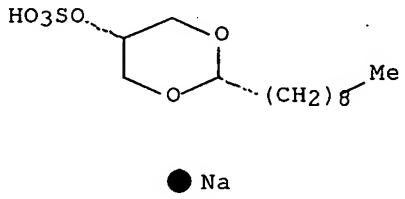


REFERENCE COUNT: 9 THERE ARE 9 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L22 ANSWER 16 OF 47 CAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 2000:270652 CAPLUS Full-text
DOCUMENT NUMBER: 133:336886
TITLE: Synthesis and surface properties of chemodegradable anionic surfactants: diastereomeric (2-n-alkyl-1,3-dioxan-5-yl) sulfates with monovalent counter-ions. [Erratum to document cited in CA132:196127]

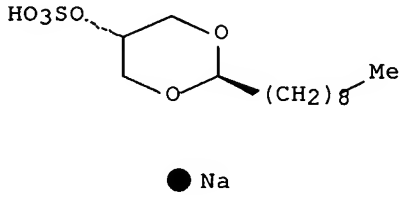
AUTHOR(S): Piasecki, Andrzej; Mayhew, Alexandra
CORPORATE SOURCE: Institute of Organic and Polymer Technology, Wroclaw University of Technology, Wroclaw, 50-370, Pol.
SOURCE: Journal of Surfactants and Detergents (**2000**), 3(2), 237
CODEN: JSDEFL; ISSN: 1097-3958
PUBLISHER: AOCS Press
DOCUMENT TYPE: Journal
LANGUAGE: English
ED Entered STN: 26 Apr 2000
AB The captions for Figs. 2 and 3 were switched; the corrected figures and their corresponding captions are given.
IT **186189-03-7P 186189-04-8P 186189-05-9P 186189-06-0P 259738-90-4P 259738-91-5P 259738-92-6P 259738-93-7P 259738-94-8P 259738-95-9P 259738-96-0P 259738-97-1P**
RL: PRP (Properties); SPN (Synthetic preparation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(synthesis and surface properties of chemodegradable diastereomeric (alkyldioxanyl) sulfate anionic surfactants with monovalent counter-ions (Erratum))
RN 186189-03-7 CAPLUS
CN 1,3-Dioxan-5-ol, 2-nonyl-, hydrogen sulfate, sodium salt, cis- (9CI) (CA INDEX NAME)

Relative stereochemistry.



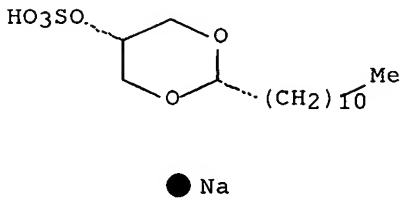
RN 186189-04-8 CAPLUS
CN 1,3-Dioxan-5-ol, 2-nonyl-, hydrogen sulfate, sodium salt, trans- (9CI) (CA INDEX NAME)

Relative stereochemistry.



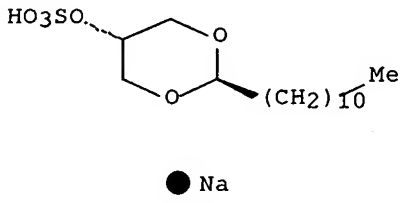
RN 186189-05-9 CAPLUS
CN 1,3-Dioxan-5-ol, 2-undecyl-, hydrogen sulfate, sodium salt, cis- (9CI) (CA INDEX NAME)

Relative stereochemistry.



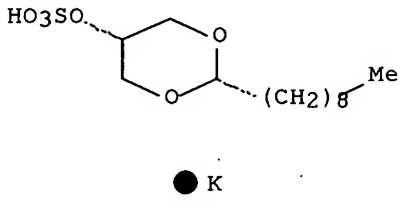
RN 186189-06-0 CAPLUS
CN 1,3-Dioxan-5-ol, 2-undecyl-, hydrogen sulfate, sodium salt, trans- (9CI) (CA INDEX NAME)

Relative stereochemistry.



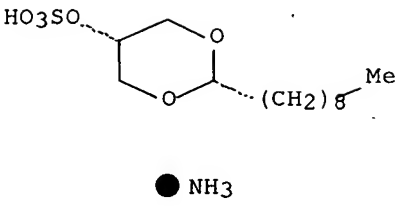
RN 259738-90-4 CAPLUS
CN 1,3-Dioxan-5-ol, 2-nonyl-, hydrogen sulfate, potassium salt, cis- (9CI) (CA INDEX NAME)

Relative stereochemistry.



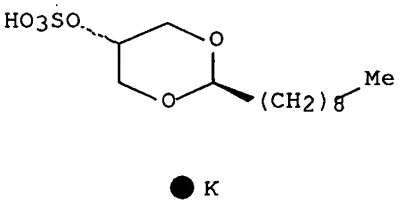
RN 259738-91-5 CAPLUS
CN 1,3-Dioxan-5-ol, 2-nonyl-, hydrogen sulfate, ammonium salt, cis- (9CI) (CA INDEX NAME)

Relative stereochemistry.



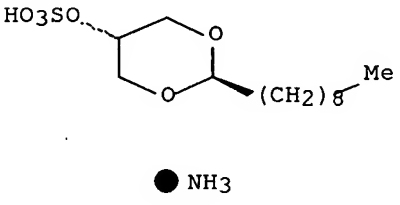
RN 259738-92-6 CAPLUS
CN 1,3-Dioxan-5-ol, 2-nonyl-, hydrogen sulfate, potassium salt, trans- (9CI) (CA INDEX NAME)

Relative stereochemistry.



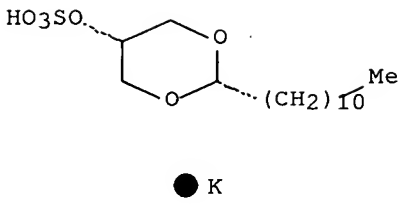
RN 259738-93-7 CAPLUS
CN 1,3-Dioxan-5-ol, 2-nonyl-, hydrogen sulfate, ammonium salt, trans- (9CI) (CA INDEX NAME)

Relative stereochemistry.



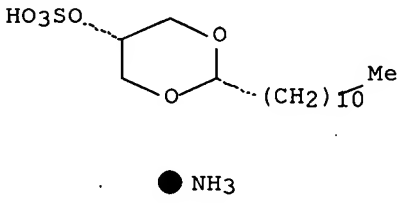
RN 259738-94-8 CAPLUS
CN 1,3-Dioxan-5-ol, 2-undecyl-, hydrogen sulfate, potassium salt, cis- (9CI) (CA INDEX NAME)

Relative stereochemistry.



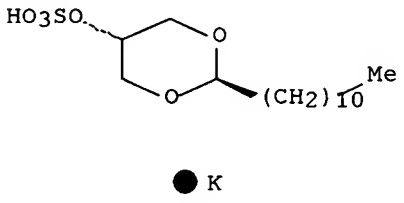
RN 259738-95-9 CAPLUS
CN 1,3-Dioxan-5-ol, 2-undecyl-, hydrogen sulfate, ammonium salt, cis- (9CI) (CA INDEX NAME)

Relative stereochemistry.



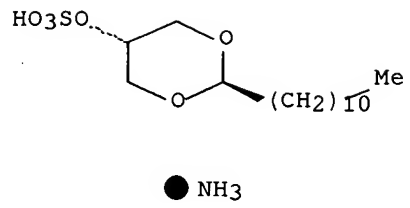
RN 259738-96-0 CAPLUS
CN 1,3-Dioxan-5-ol, 2-undecyl-, hydrogen sulfate, potassium salt, trans- (9CI) (CA INDEX NAME)

Relative stereochemistry.



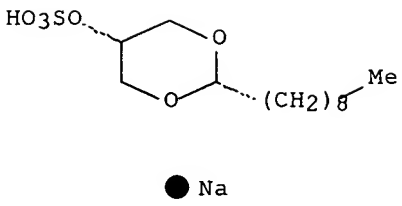
RN 259738-97-1 CAPLUS
CN 1,3-Dioxan-5-ol, 2-undecyl-, hydrogen sulfate, ammonium salt, trans- (9CI) (CA INDEX NAME)

Relative stereochemistry.



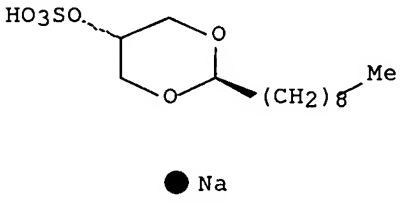
L22 ANSWER 17 OF 47 CAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 2000:51525 CAPLUS Full-text
DOCUMENT NUMBER: 132:196127
TITLE: Synthesis and surface properties of chemodegradable anionic surfactants: diastereomeric (2-n-alkyl-1,3-dioxan-5-yl) sulfates with monovalent counter-ions
AUTHOR(S): Piasecki, Andrzej; Mayhew, Alexandra
CORPORATE SOURCE: Institute of Organic and Polymer Technology, Wroclaw University of Technology, Wroclaw, 50-370, Pol.
SOURCE: Journal of Surfactants and Detergents (**2000**), 3(1), 59-65
CODEN: JSDEFL; ISSN: 1097-3958
PUBLISHER: AOCS Press
DOCUMENT TYPE: Journal
LANGUAGE: English
ED Entered STN: 23 Jan 2000
AB Sodium, potassium and ammonium cis- and trans-(2-n-alkyl-1,3-dioxan-5-yl) sulfates 6-8 (alkyl: n-C9H19, 6a-8a, and n-C11H23, 6b-8b) were synthesized in a reaction of aliphatic aldehydes 1a,b with glycerol 2 followed by separation in high yields of individual geometric isomers of cis- and trans-2-n-alkyl-5-hydroxy-1,3-dioxanes, cis-3a,b and trans-3a,b, followed by sulfation with sulfur trioxide-pyridine complex, and finally neutralization with NaOH, KOH, and NH4OH, resp. Phys. data of the compds. and some surface properties of 2-n-nonyl derivs., such as critical micelle concentration (CMC), effectiveness of aqueous surface tension reduction (ΠCMC), surface excess concentration (ΓCMC), and the surface area demand per mol. (ACMC), were determined It was shown that the surface activity of these compds. is influenced both by their geometric structure and by the monovalent counter-ion.
IT **186189-03-7P 186189-04-8P 186189-05-9P**
186189-06-0P 259738-90-4P 259738-91-5P
259738-92-6P 259738-93-7P 259738-94-8P
259738-95-9P 259738-96-0P 259738-97-1P
RL: PRP (Properties); SPN (Synthetic preparation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(synthesis and surface properties of chemodegradable diastereomeric (alkyldioxanyl) sulfate anionic surfactants with monovalent counter-ions)
RN 186189-03-7 CAPLUS
CN 1,3-Dioxan-5-ol, 2-nonyl-, hydrogen sulfate, sodium salt, cis- (9CI) (CA INDEX NAME)

Relative stereochemistry.



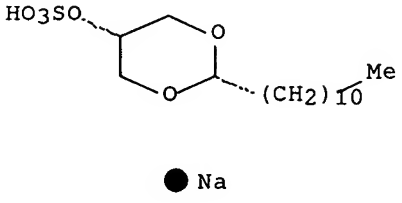
RN 186189-04-8 CAPLUS
CN 1,3-Dioxan-5-ol, 2-nonyl-, hydrogen sulfate, sodium salt, trans- (9CI) (CA INDEX NAME)

Relative stereochemistry.



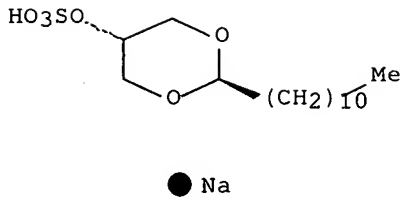
RN 186189-05-9 CAPLUS
CN 1,3-Dioxan-5-ol, 2-undecyl-, hydrogen sulfate, sodium salt, cis- (9CI) (CA INDEX NAME)

Relative stereochemistry.



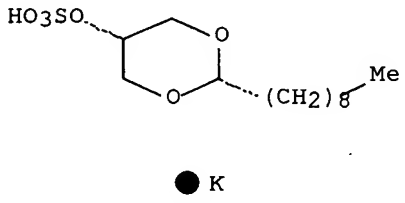
RN 186189-06-0 CAPLUS
CN 1,3-Dioxan-5-ol, 2-undecyl-, hydrogen sulfate, sodium salt, trans- (9CI) (CA INDEX NAME)

Relative stereochemistry.



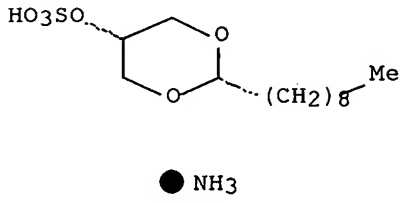
RN 259738-90-4 CAPLUS
CN 1,3-Dioxan-5-ol, 2-nonyl-, hydrogen sulfate, potassium salt, cis- (9CI) (CA INDEX NAME)

Relative stereochemistry.



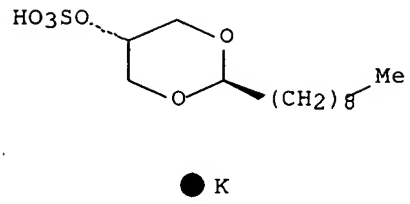
RN 259738-91-5 CAPLUS
CN 1,3-Dioxan-5-ol, 2-nonyl-, hydrogen sulfate, ammonium salt, cis- (9CI) (CA INDEX NAME)

Relative stereochemistry.



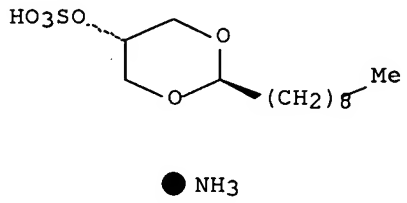
RN 259738-92-6 CAPLUS
CN 1,3-Dioxan-5-ol, 2-nonyl-, hydrogen sulfate, potassium salt, trans- (9CI) (CA INDEX NAME)

Relative stereochemistry.



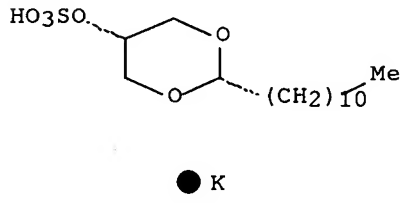
RN 259738-93-7 CAPLUS
CN 1,3-Dioxan-5-ol, 2-nonyl-, hydrogen sulfate, ammonium salt, trans- (9CI) (CA INDEX NAME)

Relative stereochemistry.



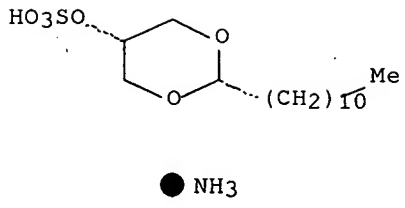
RN 259738-94-8 CAPLUS
CN 1,3-Dioxan-5-ol, 2-undecyl-, hydrogen sulfate, potassium salt, cis- (9CI) (CA INDEX NAME)

Relative stereochemistry.



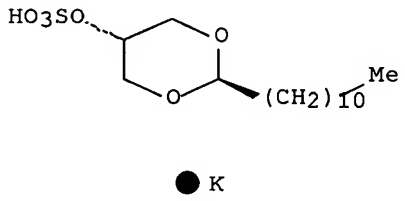
RN 259738-95-9 CAPLUS
CN 1,3-Dioxan-5-ol, 2-undecyl-, hydrogen sulfate, ammonium salt, cis- (9CI) (CA INDEX NAME)

Relative stereochemistry.



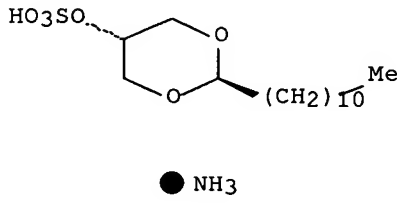
RN 259738-96-0 CAPLUS
CN 1,3-Dioxan-5-ol, 2-undecyl-, hydrogen sulfate, potassium salt, trans- (9CI) (CA INDEX NAME)

Relative stereochemistry.



RN 259738-97-1 CAPLUS
CN 1,3-Dioxan-5-ol, 2-undecyl-, hydrogen sulfate, ammonium salt, trans- (9CI) (CA INDEX NAME)

Relative stereochemistry.



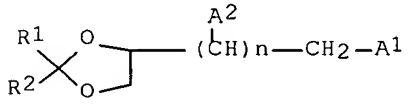
REFERENCE COUNT: 22 THERE ARE 22 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L22 ANSWER 18 OF 47 CAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 1999:774192 CAPLUS Full-text
DOCUMENT NUMBER: 132:13333
TITLE: Dioxolanes as (intermediates for) surfactants, their preparation, and acid decomposition
INVENTOR(S): Nakamura, Masaki; Nomura, Hiroshi; Miyamoto, Masanori; Hasegawa, Akira
PATENT ASSIGNEE(S): Osaka City, Japan; Teshima Kaken K. K.
SOURCE: Jpn. Kokai Tokkyo Koho, 8 pp.
CODEN: JKXXAF

DOCUMENT TYPE: **Patent**
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 11335371	A	19991207	JP 1998-138241	19980520 <--
JP 3049390	B2	20000605		

PRIORITY APPLN. INFO.: JP 1998-138241 19980520 <--
ED Entered STN: 08 Dec 1999
GI

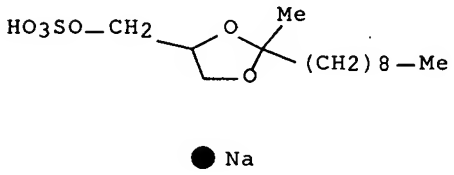


I

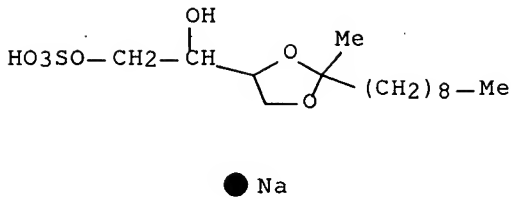
AB Dioxolanes I [R1 = Ra(ORb)y; Ra = C6-22 alkyl, alkenyl, alkynyl, (substituted) aryl; Rb = C2-4 alkylene; y = 0-20; R2 = Me, Et; n = 0, 1; A1, A2 = OH, OSO3M; M = H, alkali metal, alkaline earth metal, ammonium, C2-3 alkanolammonium, C1-5 alkylammonium, basic amino acid residue], which are decomposed into ketones, glycerin, erythritol, etc. by treatment with acids, are prepared by sulfation of I (n = 0, 1; A1 = A2 = OH). Thus, 2-undecanone was condensed with glycerin and sulfated to give I (R1 = nonyl, R2 = Me, n = 0, A1 = OSO3Na) (II) showing critical micelle concentration 1.0 + 10-2 mol/L, surface tension (at the critical micelle concentration) 39.6 mN/m, and Krafft point (1%) <0°. II was completely decomposed by 1.0 N HCl at 25° for 1 h.

IT **251453-51-7P 251453-53-9P**
RL: PEP (Physical, engineering or chemical process); PRP (Properties); SPN (Synthetic preparation); TEM (Technical or engineered material use); PREP (Preparation); PROC (Process); USES (Uses)
(preparation and acid decomposition of dioxolanes as (intermediates for) surfactants)

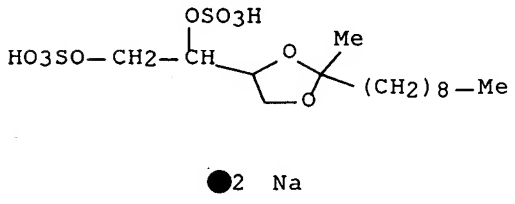
RN 251453-51-7 CAPLUS
CN 1,3-Dioxolane-4-methanol, 2-methyl-2-nonyl-, hydrogen sulfate, sodium salt (9CI) (CA INDEX NAME)



RN 251453-53-9 CAPLUS
CN 1,2-Ethanediol, 1-(2-methyl-2-nonyl-1,3-dioxolan-4-yl)-, 2-(hydrogen sulfate), monosodium salt (9CI) (CA INDEX NAME)



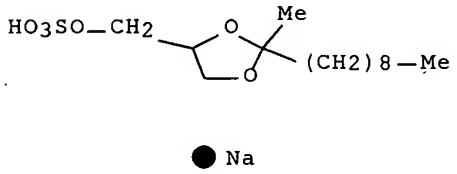
IT **251453-54-0P**
RL: SPN (Synthetic preparation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(preparation and acid decomposition of dioxolanes as (intermediates for) surfactants)
RN 251453-54-0 CAPLUS
CN 1,2-Ethanediol, 1-(2-methyl-2-nonyl-1,3-dioxolan-4-yl)-, bis(hydrogen sulfate), disodium salt (9CI) (CA INDEX NAME)



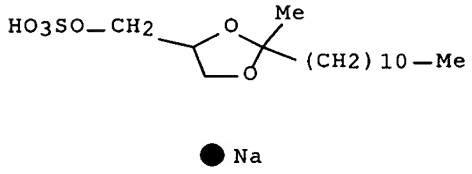
6/15

L22 ANSWER 19 OF 47 CAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 1999:619226 CAPLUS Full-text
DOCUMENT NUMBER: 132:238708
TITLE: Synthesis and properties of sulfate- and polyoxyethylene-type chemodegradable surfactants bearing a 1,3-dioxolane ring
AUTHOR(S): Yamamura, Shingo; Ono, Daisuke; Nakamura, Masaki; Shizuma, Motohiro; Tamai, Toshiyuki; Takeda, Tokuji
CORPORATE SOURCE: Osaka Munic. Tech. Res. Inst., Osaka, 536-8553, Japan
SOURCE: Kagaku to Kogyo (Osaka) (**1999**), 73(9), 419-425
CODEN: KKGOAG; ISSN: 0368-5918
PUBLISHER: Osaka Koken Kyokai
DOCUMENT TYPE: Journal
LANGUAGE: Japanese
ED Entered STN: 28 Sep 1999
AB Chemodegradable anionic and nonionic surfactants bearing a 1,3-dioxolane ring were prepared by the acid-catalyzed condensation of ketones and glycerol, followed by sulfation or ethoxylation. These surfactants had good surface activity and detergency, and were easily hydrolyzed under acidic conditions.
IT **251453-51-7P**, (2-Methyl-2-nonyl-1,3-dioxolan-4-yl)methyl sulfate sodium salt **261963-60-4P**, (2-Methyl-2-undecyl-1,3-dioxolan-4-yl)methyl sulfate sodium salt
RL: PRP (Properties); SPN (Synthetic preparation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(anionic surfactant; preparation of chemodegradable surfactants bearing

dioxolane ring)
RN 251453-51-7 CAPLUS
CN 1,3-Dioxolane-4-methanol, 2-methyl-2-nonyl-, hydrogen sulfate, sodium salt (9CI) (CA INDEX NAME)



RN 261963-60-4 CAPLUS
CN 1,3-Dioxolane-4-methanol, 2-methyl-2-undecyl-, hydrogen sulfate, sodium salt (9CI) (CA INDEX NAME)



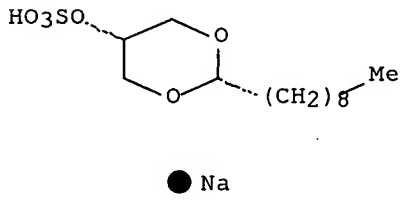
L22 ANSWER 20 OF 47 CAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 1999:371434 CAPLUS Full-text
DOCUMENT NUMBER: 131:134992
TITLE: Adsorption of Diastereomerically Pure Sodium cis- and trans-(2-n-Alkyl-1,3-dioxan-5-yl) Sulfates at the n-Heptane-Water Interface
AUTHOR(S): Sokolowski, Adam; Zielonka, Barbara; Piasecki, Andrzej; Wilk, Kazimiera A.; Burczyk, Bogdan
CORPORATE SOURCE: Institute of Organic and Polymer Technology, Wroclaw University of Technology, Wroclaw, 50-370, Pol.
SOURCE: Journal of Physical Chemistry B (**1999**), 103(26), 5512-5516
CODEN: JPCBFK; ISSN: 1089-5647
PUBLISHER: American Chemical Society
DOCUMENT TYPE: Journal
LANGUAGE: English
ED Entered STN: 16 Jun 1999
AB A systematic study concerning adsorption and aggregation of chemodegradable, diastereomerically pure Na cis- and trans-(2-n-alkyl-1,3- dioxan-5-yl) sulfates (alkyl: n-C9H19 and n-C11H23) in the system consisting of n-heptane in contact with aqueous 0.2M NaCl at 31° was undertaken. The role of the 6-membered 1,3-dioxane ring was discussed in terms of comparison between studied surfactants and classical Na decyl and dodecyl sulfates. Surface parameters of compds. under study at the oil-H2O interface, i.e., surface tension reduction (π), surface excess concentration (Γ), surface area demand per mol. (A), critical micelle concentration (cmc), standard free energy of adsorption (ΔG_{oads}), and of micellization (ΔG_{ocmc}), show differences due to the

adsorption and interfacial tensions of diastereomerically pure sodium cis- and trans-(alkyl dioxan-yl) sulfates at heptane-aqueous NaCl systems and to the hydrophilic, i.e., sulfate group configuration at the C-5 atom of the 1,3-dioxane ring. The cmc, ΔGoads, and ΔGocmc values are lower for the trans isomers than for the cis ones, whereas the effectiveness of surface tension reduction is nearly the same for both isomers. Addnl., the interfacial tensions of the studied acetal-type isomers were described for the heptane-aqueous NaCl systems containing Aerosol OT. According to findings the configuration of the -OSO3Na polar group at the C-5 C atom of the 1,3-dioxane ring, i.e., equatorial in trans isomers and axial in cis isomers, involves diastereomeric differentiation in the aggregation abilities.

IT **186189-03-7 186189-04-8 186189-05-9**
186189-06-0
RL: PEP (Physical, engineering or chemical process); PRP (Properties); PROC (Process)
(adsorption and interfacial tensions of diastereomerically pure sodium cis- and trans-(alkyldioxan-yl) sulfates at heptane-water interface)

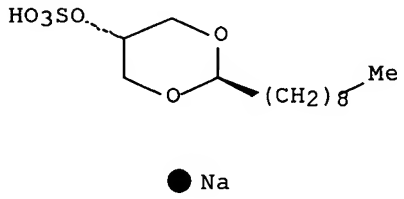
RN 186189-03-7 CAPLUS
CN 1,3-Dioxan-5-ol, 2-nonyl-, hydrogen sulfate, sodium salt, cis- (9CI) (CA INDEX NAME)

Relative stereochemistry.



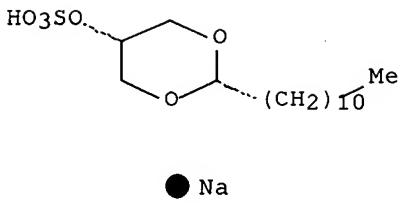
RN 186189-04-8 CAPLUS
CN 1,3-Dioxan-5-ol, 2-nonyl-, hydrogen sulfate, sodium salt, trans- (9CI) (CA INDEX NAME)

Relative stereochemistry.



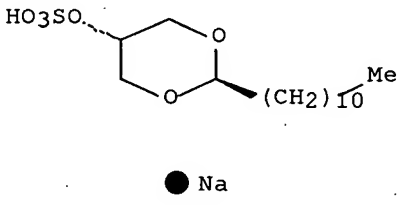
RN 186189-05-9 CAPLUS
CN 1,3-Dioxan-5-ol, 2-undecyl-, hydrogen sulfate, sodium salt, cis- (9CI) (CA INDEX NAME)

Relative stereochemistry.



RN 186189-06-0 CAPLUS
CN 1,3-Dioxan-5-ol, 2-undecyl-, hydrogen sulfate, sodium salt, trans- (9CI) (CA INDEX NAME)

Relative stereochemistry.



REFERENCE COUNT: 40 THERE ARE 40 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L22 ANSWER 21 OF 47 CAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 1999:321047 CAPLUS Full-text
DOCUMENT NUMBER: 131:5434
TITLE: Synthesis of disaccharides, containing sulfur in the ring of the reducing monosaccharide unit, through a nonglycosylating chemical strategy
AUTHOR(S): Isac-Garcia, Joaquin; Calvo-Flores, Francisco G.; Hernandez-Mateo, Fernando; Santoyo-Gonzalez, Francisco
CORPORATE SOURCE: Instituto de Biotecnologia, Facultad de Ciencias Universidad de Granada, Granada, E-18071, Spain
SOURCE: Chemistry--A European Journal (**1999**), 5(5), 1512-1525
CODEN: CEUJED; ISSN: 0947-6539
PUBLISHER: Wiley-VCH Verlag GmbH
DOCUMENT TYPE: Journal
LANGUAGE: English
ED Entered STN: 26 May 1999
AB The synthesis of disaccharides containing sulfur in the reducing ring through a nonglycosylating chemical strategy is described. Lactose, maltose and cellobiose were transformed in several steps into the appropriately protected 4-O-glycosyl-2,3-O-isopropyliden-aldehydo-D-glucose di-Me acetals and 4-O-glycosyl-2,3-O-isopropyliden-aldehydo-L-idose di-Me acetals. The protected 4-O-glycosyl-2,3-O-isopropyliden-aldehydo-D- glucose di-Me acetals were converted into the corresponding 4-O-glycosyl-5,6-dideoxy-5,6-epithio-2,3-O-isopropylidene-aldehydo-L-idose di-Me acetals via the 5,6-cyclic sulfates, by reaction with potassium thioacetate or potassium thiocyanate and treatment with NaOMe/MeOH. Nucleophilic ring opening of the episulfide ring, with sodium acetate followed by acidic hydrolysis, Zemplen de-O-acetylation and

acetylation gave the thio disaccharides 4-O-(2',3',4',6'-tetra-O-acetyl-β-D-galactopyranosyl-, -α-D-glucopyranosyl- and -β-D- glucopyranosyl)-1,2,3,6-tetra-O-acetyl-5-thio-α,β-L- idopyranoses. 1,2,3-Tri-O-acetyl-4-O-[2',3',4',6'-tetra-O-acetyl-β-D- galactopyranosyl]-6-deoxy-5-thio-α,β-L-idopyranose was obtained by treatment of 4-O-(2',6'-di-O-acetyl-3',4'-O-isopropylidene-β-D- galactopyranosyl)-2,3-O-isopropylidene-6-S-cyano-5-O-sulfonate-6-thio- aldehydo-D-glucose di-Me acetal potassium salt with lithium aluminum hydride followed by acidic hydrolysis and acetylation. The analogous thio maltose and cellobiose were synthesized following a similar strategy (5,6-cyclic sulfate → episulfide → thiosugar).

IT **225519-35-7P 225519-36-8P 225519-37-9P**

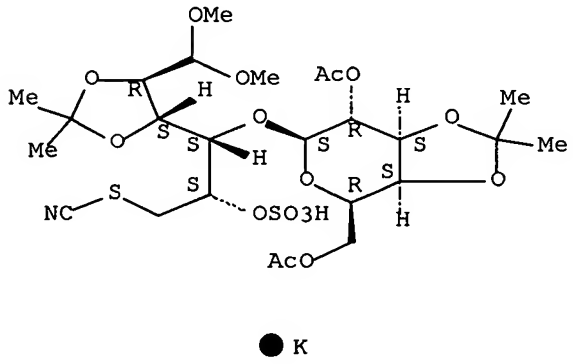
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(preparation of disaccharides containing sulfur in the ring of the reducing monosaccharide unit, through a nonglycosylating chemical strategy)

RN 225519-35-7 CAPLUS

CN D-Glucose, 4-O-[2,6-di-O-acetyl-3,4-O-(1-methylethylidene)-β-D-galactopyranosyl]-2,3-O-(1-methylethylidene)-6-thio-, 1-(dimethyl acetal), 6-cyanate 5-(hydrogen sulfate), potassium salt (9CI) (CA INDEX NAME)

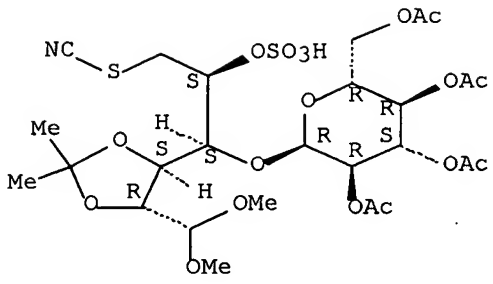
Absolute stereochemistry. Rotation (+).



RN 225519-36-8 CAPLUS

CN D-Glucose, 2,3-O-(1-methylethylidene)-4-O-(2,3,4,6-tetra-O-acetyl-α-D-glucopyranosyl)-6-thio-, 1-(dimethyl acetal), 6-cyanate 5-(hydrogen sulfate), potassium salt (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (+).

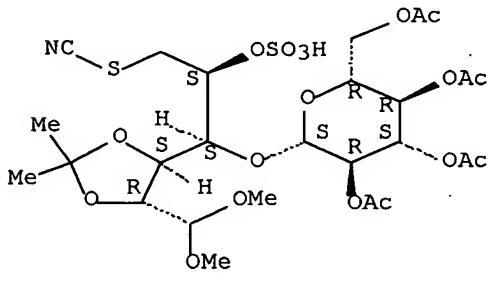


● K

RN 225519-37-9 CAPLUS

CN D-Glucose, 2,3-O-(1-methylethylidene)-4-O-(2,3,4,6-tetra-O-acetyl-β-D-glucopyranosyl)-6-thio-, 1-(dimethyl acetal), 6-cyanate 5-(hydrogen sulfate), potassium salt (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).



● K

REFERENCE COUNT: 72 THERE ARE 72 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L22 ANSWER 22 OF 47 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 1999:304333 CAPLUS Full-text

DOCUMENT NUMBER: 130:311801

TITLE: Preparation of novel sodium sulfates of 1,3-dioxane derivatives

INVENTOR(S): Piasecki, Andrzej; Burczyk, Bogdan; Sokolowski, Adam; Kotlewska, Urszula

PATENT ASSIGNEE(S): Politechnika Wroclawska, Pol.

SOURCE: Pol., 4 pp.
CODEN: POXXA7

DOCUMENT TYPE: **Patent**

LANGUAGE: Polish

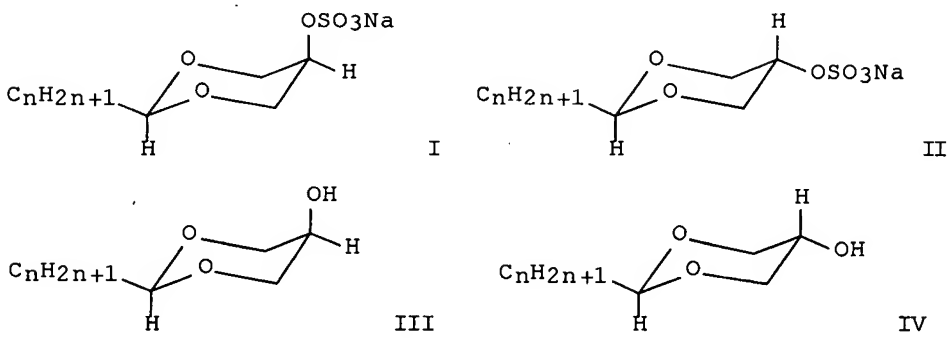
FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE

PL 175563	B1	19990129	PL 1994-306516	19941223 <--
PRIORITY APPLN. INFO.:			PL 1994-306516	19941223 <--

OTHER SOURCE(S): MARPAT 130:311801
ED Entered STN: 19 May 1999
GI

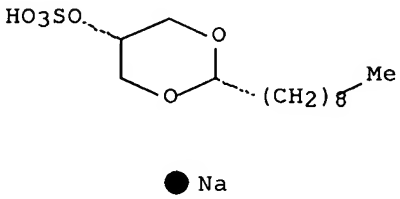


AB The title compds. [I or II; n = 7-13], potentially useful as surfactants (no data), were prepared by reacting cis-(or trans-)2-alkyl-5-hydroxy-1,3-dioxanes [III or IV] with ClSO3H in CCl4 in the presence of pyridine followed by treatment of the intermediate with alc.-H2O solution of NaOH, Na2CO3 or NaHCO3 or by reacting III or IV with C5H5N*SO3 in CCl4 followed by treatment of the intermediate with alc.-aqueous solution of NaOH, Na2CO3 or NaHCO3.

IT **186189-03-7P 186189-06-0P 223537-63-1P**
RL: IMF (Industrial manufacture); SPN (Synthetic preparation); PREP (Preparation)
(preparation of novel sodium sulfates of 1,3-dioxane derivs.)

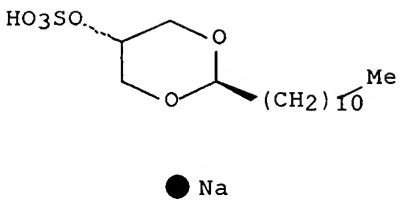
RN 186189-03-7 CAPLUS
CN 1,3-Dioxan-5-ol, 2-nonyl-, hydrogen sulfate, sodium salt, cis- (9CI) (CA INDEX NAME)

Relative stereochemistry.

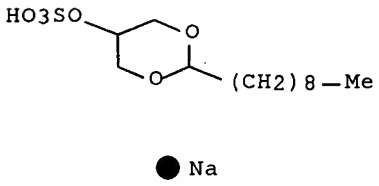


RN 186189-06-0 CAPLUS
CN 1,3-Dioxan-5-ol, 2-undecyl-, hydrogen sulfate, sodium salt, trans- (9CI) (CA INDEX NAME)

Relative stereochemistry.



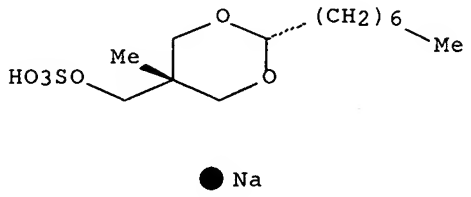
RN 223537-63-1 CAPLUS
CN 1,3-Dioxan-5-ol, 2-nonyl-, hydrogen sulfate, sodium salt (9CI) (CA INDEX NAME)



L22 ANSWER 23 OF 47 CAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 1997:808663 CAPLUS Full-text
DOCUMENT NUMBER: 128:63186
TITLE: Chemical structure and surface activity. XXXII. Synthesis and surface properties of chemodegradable surfactants: sodium cis-[(2-n-alkyl-5-methyl-1,3-dioxan-5-yl)methyl] sulfates
AUTHOR(S): Piasecki, Andrzej; Burczyk, Bogdan; Sokolowski, Adam; Mayhew, Aleksandra; Wilk, Kazimiera A.
CORPORATE SOURCE: INSTITUTE OF ORGANIC AND POLYMER TECHNOLOGY, TECHNICAL UNIVERSITY OF WROCLAW, WROCLAW, 50-370, Pol.
SOURCE: Bulletin of the Polish Academy of Sciences, Chemistry (**1997**), 45(3), 329-337
CODEN: BPACEQ; ISSN: 0239-7285
PUBLISHER: Polish Academy of Sciences
DOCUMENT TYPE: Journal
LANGUAGE: English
ED Entered STN: 31 Dec 1997
AB Sodium cis-[(2-n-alkyl-5-methyl-1,3-dioxan-5-yl)methyl] sulfates (alkyl: n-C7H15, n-C9H19 and n-C11H23) were synthesized by reaction of aliphatic aldehydes and 1,1,1-tris(hydroxymethyl)ethane, followed by sulfation with sulfur trioxide-pyridine complex and neutralization with NaHCO3 (NaOH) of the intermediate mixts. of cis- and trans-2-n-alkyl-5-hydroxymethyl-5- methyl-1,3-dioxanes or individual cis-isomers. Some of their surface properties at the aqueous solution-air interface were determined
IT **139888-69-0P 139888-70-3P 139888-72-5P**
RL: SPN (Synthetic preparation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(synthesis and surface properties of chemodegradable sodium cis-[(2-n-alkyl-5-methyl-1,3-dioxan-5-yl)methyl] sulfate surfactants)
RN 139888-69-0 CAPLUS
CN 1,3-Dioxane-5-methanol, 2-heptyl-5-methyl-, hydrogen sulfate, sodium salt,

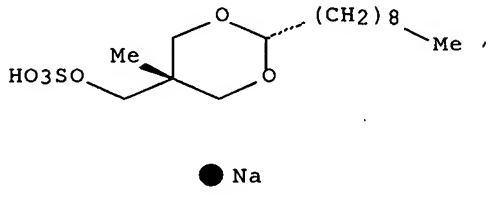
cis- (9CI) (CA INDEX NAME)

Relative stereochemistry.



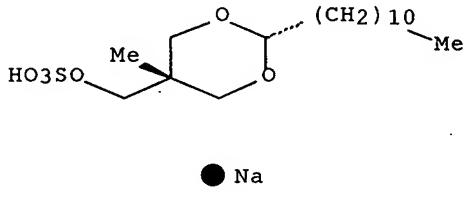
RN 139888-70-3 CAPLUS
CN 1,3-Dioxane-5-methanol, 5-methyl-2-nonyl-, hydrogen sulfate, sodium salt, cis- (9CI) (CA INDEX NAME)

Relative stereochemistry.



RN 139888-72-5 CAPLUS
CN 1,3-Dioxane-5-methanol, 5-methyl-2-undecyl-, hydrogen sulfate, sodium salt, cis- (9CI) (CA INDEX NAME)

Relative stereochemistry.



REFERENCE COUNT: 12 THERE ARE 12 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L22 ANSWER 24 OF 47 CAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 1997:569475 CAPLUS Full-text
DOCUMENT NUMBER: 127:308641
TITLE: Synthesis, surface properties, and hydrolysis of chemodegradable anionic surfactants: diastereomerically pure cis- and trans-2,5-disubstituted-1,3-dioxanes
AUTHOR(S): Piasecki, Andrzej; Sokolowski, Adam; Burczyk, Bogdan; Gancarz, Roman; Kotlewska, Urszula
CORPORATE SOURCE: Institute Organic Polymer Technology, Technical

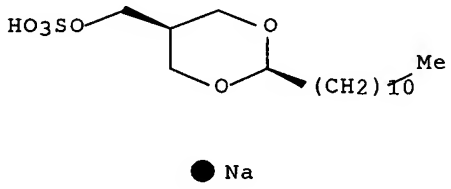
University Wroclaw, Wroclaw, 50-370, Pol.
SOURCE: Journal of Colloid and Interface Science (**1997**), 192(1), 74-82
CODEN: JCISA5; ISSN: 0021-9797
PUBLISHER: Academic
DOCUMENT TYPE: Journal
LANGUAGE: English
ED Entered STN: 06 Sep 1997

AB Two new groups of anionic surfactants, sodium cis- and trans-(2-n-undecyl-1,3-dioxan-5-yl)methyl sulfates and sodium cis- and trans-3-[(2-n-undecyl-1,3-dioxan-5-yl)oxy]propanesulfonates, were synthesized and investigated. Surface properties of these surfactants, i.e., surface excess concentration, Γ, surface area demand per mol., A, effectiveness of surface tension reduction, Π, critical micelle concentration, CMC, and standard free energies of adsorption, ΔGads0, and of micellization, ΔGmic0, were determined The trans-isomers, in which the configuration of the polar group is equatorial, are more surface active than the cis-isomers with axial configuration of the polar group at the C-5 carbon atom of the 1,3-dioxane ring. The surfactants under study undergo easy hydrolysis reaction in DCl/D2O solution with cleavage of the 1,3-dioxane ring to nonsurface active intermediates. The trans-isomers are hydrolyzed faster than the cis-isomers.

IT **197294-67-0P 197294-68-1P 197294-69-2P**
197294-70-5P
RL: SPN (Synthetic preparation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(synthesis, surface properties, and hydrolysis of diastereomerically pure cis- and trans-2,5-disubstituted-1,3-dioxane anionic surfactantss)

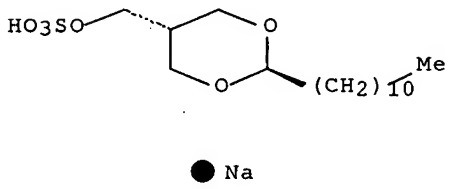
RN 197294-67-0 CAPLUS
CN 1,3-Dioxane-5-methanol, 2-undecyl-, hydrogen sulfate, sodium salt, cis- (9CI) (CA INDEX NAME)

Relative stereochemistry.



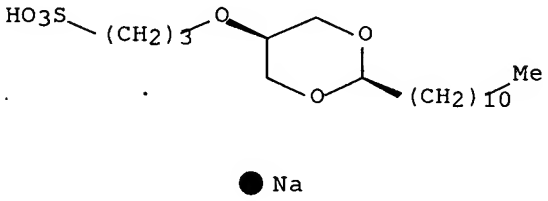
RN 197294-68-1 CAPLUS
CN 1,3-Dioxane-5-methanol, 2-undecyl-, hydrogen sulfate, sodium salt, trans- (9CI) (CA INDEX NAME)

Relative stereochemistry.



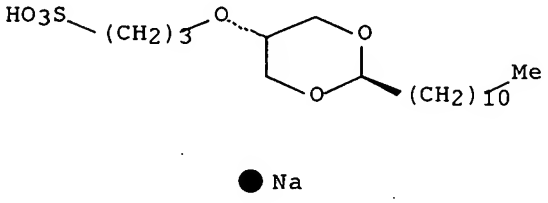
RN 197294-69-2 CAPLUS
CN 1-Propanesulfonic acid, 3-[(2-undecyl-1,3-dioxan-5-yl)oxy]-, sodium salt, cis- (9CI) (CA INDEX NAME)

Relative stereochemistry.



RN 197294-70-5 CAPLUS
CN 1-Propanesulfonic acid, 3-[(2-undecyl-1,3-dioxan-5-yl)oxy]-, sodium salt, trans- (9CI) (CA INDEX NAME)

Relative stereochemistry.



REFERENCE COUNT: 33 THERE ARE 33 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

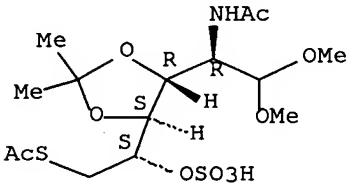
L22 ANSWER 25 OF 47 CAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 1997:335206 CAPLUS Full-text
DOCUMENT NUMBER: 127:34416
TITLE: Applications of Cyclic Sulfates of vic-Diols: Synthesis of Episulfides, Olefins, and Thio Sugars
AUTHOR(S): Calvo-Flores, Francisco G.; Garcia-Mendoza, Pilar; Hernandez-Mateo, Fernando; Isac-Garcia, Joaquin; Santoyo-Gonzalez, Francisco
CORPORATE SOURCE: Instituto de Biotecnologia Facultad de Ciencias, Universidad de Granada, Granada, 18071, Spain
SOURCE: Journal of Organic Chemistry (**1997**), 62(12), 3944-3961
CODEN: JOCEAH; ISSN: 0022-3263
PUBLISHER: American Chemical Society
DOCUMENT TYPE: Journal
LANGUAGE: English
OTHER SOURCE(S): CASREACT 127:34416
ED Entered STN: 29 May 1997
AB A new efficient and expeditious one-pot synthesis of thiiranes and olefins from cyclic sulfates of vic-diols is described. Opening of cyclic sulfates with potassium thioacetate or potassium thiocyanate followed by treatment with sodium methoxide led to episulfides. Olefins were obtained when potassium

selenocyanate was used as nucleophile, and the obtained monoesters were treated with sodium borohydride. This method was applied to acyclic polyols derived from chiral glycerin, 1,2- isopropylidenehexofuranoses with different substituents at C-3, and di-Me acetals derived from pentoses and hexoses. The methodol. is highly versatile, and its applicability has been demonstrated by the preparation of different 4- and 5-thio sugars by opening of the thiirane ring with sodium acetate or lithium aluminum hydride. Reduction with lithium aluminum hydride of the thiocyanate sulfate potassium salt obtained by the opening of cyclic sulfate with KSCN allowed the direct preparation of 5-deoxy-4-thio and 6-deoxy-5-thio sugars. Cyclic thio sugars with the sulfur atom in the ring are obtained by acidic hydrolysis of the 5-thiol derivs. of 1,2-O-isopropylidenehexofuranoses and 4-thiopentose di-Me acetals. Using this method, an efficient synthesis of 5-thio-L-fucose as well as the synthesis of 2,5-dideoxy-4-thiofuranose is described.

IT **190599-02-1P 190599-04-3P 190599-21-4P**
190599-74-7P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(synthesis of episulfides and olefins and thio-sugars from cyclic sulfates of vic-diols)

RN 190599-02-1 CAPLUS
CN D-Glucose, 2-(acetylamino)-2-deoxy-3,4-O-(1-methylethylidene)-6-thio-, 1-(dimethyl acetal), 6-acetate 5-(hydrogen sulfate), monopotassium salt (9CI) (CA INDEX NAME)

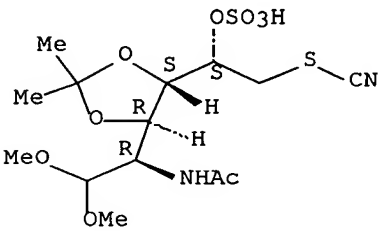
Absolute stereochemistry. Rotation (-).



● K

RN 190599-04-3 CAPLUS
CN D-Glucose, 2-(acetylamino)-2-deoxy-3,4-O-(1-methylethylidene)-6-thio-, 1-(dimethyl acetal), 6-cyanate 5-(hydrogen sulfate), monopotassium salt (9CI) (CA INDEX NAME)

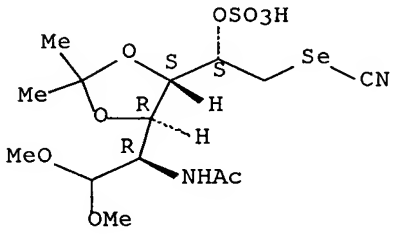
Absolute stereochemistry. Rotation (-).



● K

RN 190599-21-4 CAPLUS
CN D-Glucose, 2-(acetylamino)-2-deoxy-3,4-O-(1-methylethylidene)-6-seleno-, 1-(dimethyl acetal), 6-cyanate 5-(hydrogen sulfate), monopotassium salt (9CI) (CA INDEX NAME)

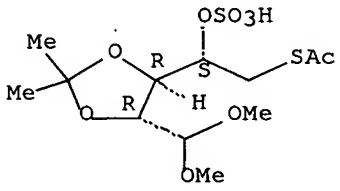
Absolute stereochemistry. Rotation (+).



● K

RN 190599-74-7 CAPLUS
CN D-Xylose, 2,3-O-(1-methylethylidene)-5-thio-, dimethyl acetal, 6-acetate 5-(hydrogen sulfate), potassium salt (9CI) (CA INDEX NAME)

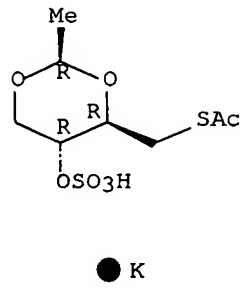
Absolute stereochemistry. Rotation (-).



● K

IT **190599-15-6P**
RL: SPN (Synthetic preparation); PREP (Preparation)
(synthesis of episulfides and olefins and thio-sugars from cyclic sulfates of vic-diols)
RN 190599-15-6 CAPLUS
CN Ethanethioic acid, S-[[2-methyl-5-(sulfooxy)-1,3-dioxan-4-yl]methyl] ester, potassium salt, [2R-(2α,4α,5β)]- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (+).



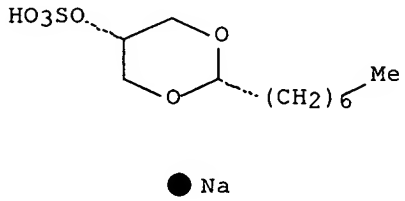
● K

REFERENCE COUNT: 136 THERE ARE 136 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L22 ANSWER 26 OF 47 CAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 1997:164886 CAPLUS Full-text
DOCUMENT NUMBER: 126:145606
TITLE: Synthesis, Surface Properties, and Hydrolysis of Chemodegradable Anionic Surfactants: Diastereomerically Pure Sodium cis- and trans-2-n-Alkyl-1,3-dioxan-5-yl Sulfates
AUTHOR(S): Piasecki, Andrzej; Soko-lowski, Adam; Burczyk, Bogdan; Gancarz, Roman; Kotlewska, Urszula
CORPORATE SOURCE: Institute of Organic and Polymer Technology and Institute of Organic Chemistry Biochemistry and Biotechnology, Technical University of Wroc-law, Wroclaw, 50-370, Pol.
SOURCE: Langmuir (**1997**), 13(6), 1434-1439
CODEN: LANGD5; ISSN: 0743-7463
PUBLISHER: American Chemical Society
DOCUMENT TYPE: Journal
LANGUAGE: English
ED Entered STN: 11 Mar 1997
AB A systematic study concerning the synthesis, adsorption, micellization, and hydrolytic decomposition of new, chemodegradable and diastereomerically pure sodium cis- and trans-2-n-alkyl-1,3-dioxan-5-yl sulfates (alkyl: n-C7H15, n-C9H19, and n-C11H23) has been undertaken. Surface parameters of the compds. under study at the aqueous solution/air interface, i.e., surface tension reduction, surface excess concentration, surface area demand per mol., and standard free energy of adsorption and micellization, show differences both in the alkyl chain length and in the hydrophilic, i.e., sulfate, group configuration at the 1,3-dioxane ring. The cmc values are lower for the trans-isomers than for the cis-isomers, the $\Delta G°ads$ and $\Delta G°cmc$ values are lower for trans-isomers, and the effectiveness of surface tension reduction is higher for the cis-isomers than for the trans-isomers. The investigated compds. undergo an easy hydrolysis reaction of the acetal function, leading to starting aldehydes and sulfated glycerol. The trans-isomers are hydrolyzed much faster than cis-isomers, and no isomerization reaction of the type cis .dblharw. trans is observed during the hydrolysis process.
IT **186189-01-5P 186189-02-6P 186189-03-7P**
186189-04-8P 186189-05-9P 186189-06-0P
RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)
(synthesis, surface properties, and hydrolysis of chemodegradable sodium cis- and trans-2-n-alkyl-1,3-dioxan-5-yl sulfate anionic surfactants)
RN 186189-01-5 CAPLUS

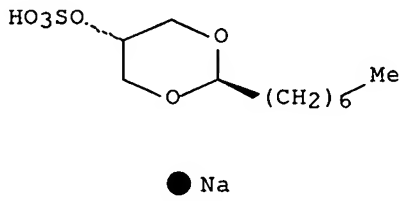
CN 1,3-Dioxan-5-ol, 2-heptyl-, hydrogen sulfate, sodium salt, cis- (9CI) (CA INDEX NAME)

Relative stereochemistry.



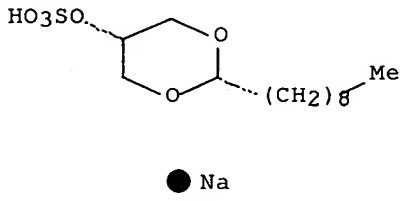
RN 186189-02-6 CAPLUS
CN 1,3-Dioxan-5-ol, 2-heptyl-, hydrogen sulfate, sodium salt, trans- (9CI) (CA INDEX NAME)

Relative stereochemistry.



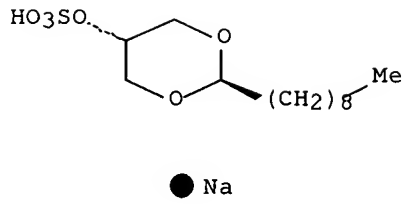
RN 186189-03-7 CAPLUS
CN 1,3-Dioxan-5-ol, 2-nonyl-, hydrogen sulfate, sodium salt, cis- (9CI) (CA INDEX NAME)

Relative stereochemistry.



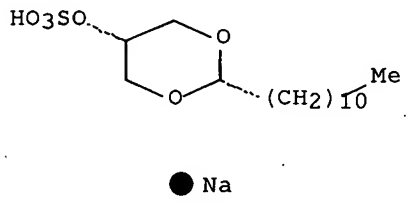
RN 186189-04-8 CAPLUS
CN 1,3-Dioxan-5-ol, 2-nonyl-, hydrogen sulfate, sodium salt, trans- (9CI) (CA INDEX NAME)

Relative stereochemistry.



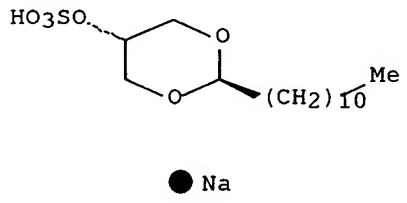
RN 186189-05-9 CAPLUS
CN 1,3-Dioxan-5-ol, 2-undecyl-, hydrogen sulfate, sodium salt, cis- (9CI) (CA INDEX NAME)

Relative stereochemistry.



RN 186189-06-0 CAPLUS
CN 1,3-Dioxan-5-ol, 2-undecyl-, hydrogen sulfate, sodium salt, trans- (9CI) (CA INDEX NAME)

Relative stereochemistry.



REFERENCE COUNT: 27 THERE ARE 27 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

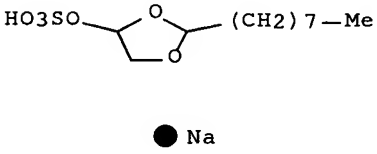
L22 ANSWER 27 OF 47 CAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 1997:91830 CAPLUS Full-text
DOCUMENT NUMBER: 126:119361
TITLE: Chemical structure and activity. XXX. Synthesis and surface properties of chemodegradable anionic surfactants: sodium (2-n-alkyl-1,3-dioxan-5-yl)sulfates
AUTHOR(S): Piasecki, Andrzej; Sokolowski, Adam; Burczyk, Bogdan; Kotlewska, Urszula
CORPORATE SOURCE: Inst. Organic Polymer Technology, Technical Univ.

Wroclaw, Wroclaw, 50-370, Pol.
SOURCE: Journal of the American Oil Chemists' Society (**1997**), 74(1), 33-37
CODEN: JAOCA7; ISSN: 0003-021X
PUBLISHER: AOCS Press
DOCUMENT TYPE: Journal
LANGUAGE: English
ED Entered STN: 08 Feb 1997

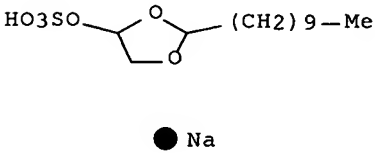
AB In the reaction of cis- and trans-2-n-alkyl-5-hydroxy-1,3-dioxane mixts. with SO3·pyridine complex, followed by neutralization with NaOH or Na2CO3, a new group of anionic surfactants, i.e., Na cis- and trans-(2-n-alkyl-1,3-dioxan-5-yl)sulfates were obtained. The hydrophobic intermediates used in the sulfation reaction were obtained in high yields from 4-component glycerol acetals by the process of transacetalization and selective crystallization of 1,3-dioxane derivs. The phys. data of the new compds. and some of their surface properties, such as critical micelle concentration, effectiveness of water surface tension reduction, standard free energies of adsorption and micellization, surface excess concentration, and the surface area demand per mol. were determined The surface activity of the standard anionic surfactant Na dodecyl sulfate should be similar to the surface activity of Na (2-n-decyl-1,3-dioxan-5-yl)sulfate.

IT **186302-97-6P**, 2-Octyl-1,3-dioxolan-5-yl sulfate sodium salt
186302-98-7P, 2-Decyl-1,3-dioxolan-5-yl sulfate sodium salt
186302-99-8P, 2-Dodecyl-1,3-dioxolan-5-yl sulfatesodium salt
RL: SPN (Synthetic preparation); PREP (Preparation)
(synthesis and surface properties of chemodegradable anionic surfactants sodium (alkyldioxanyl)sulfates)

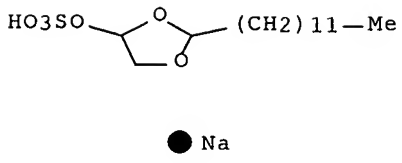
RN 186302-97-6 CAPLUS
CN 1,3-Dioxolan-4-ol, 2-octyl-, hydrogen sulfate, sodium salt (9CI) (CA INDEX NAME)



RN 186302-98-7 CAPLUS
CN 1,3-Dioxolan-4-ol, 2-decyl-, hydrogen sulfate, sodium salt (9CI) (CA INDEX NAME)



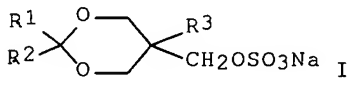
RN 186302-99-8 CAPLUS
CN 1,3-Dioxolan-4-ol, 2-dodecyl-, hydrogen sulfate, sodium salt (9CI) (CA INDEX NAME)



L22 ANSWER 28 OF 47 CAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 1995:673889 CAPLUS Full-text
DOCUMENT NUMBER: 123:59616
TITLE: Manufacturing surface-active sodium sulfate derivatives of 2,5-di- and 2,2,5-trisubstituted 5-hydroxymethyl-1,3-dioxanes
INVENTOR(S): Piasecki, Andrzej; Burczyk, Bogdan
PATENT ASSIGNEE(S): Politechnika Wroclawska, Pol.
SOURCE: Pol., 5 pp.
CODEN: POXXA7
DOCUMENT TYPE: **Patent**
LANGUAGE: Polish
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PL 162441	B1	19931231	PL 1990-283199	19900103 <--
PRIORITY APPLN. INFO.:			PL 1990-283199	19900103 <--

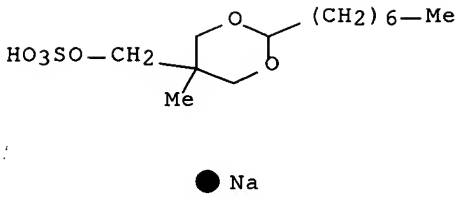
OTHER SOURCE(S): MARPAT 123:59616
ED Entered STN: 14 Jul 1995
GI



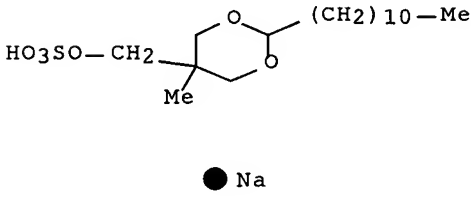
AB Title surfactants I (R1 = CaH2a+1, Ph, or CbH2b+1C6H4, a = 5-15, b = 1-12, R2 = H or CcH2c+1, c = 1-8, R1R2 = CdH2d, d = 5-12, R3 = Me or Et) are manufactured by reaction of the corresponding hydroxymethyldioxane with C5H5N and ClSO3H in a solvent such as CCl4 at 260-320K and dioxane derivative-ClSO3H-C5H5N mol ratio 1:(1-1.1):(2.1-2.5) or with a C5H5N-SO3 complex (II) in a solvent such as CCl4 at dioxane derivative-II mol ratio 1:(1-1.1) and 260-320K, evaporation of the reaction mixture, dissoln. of the evaporated product in an aqueous alc. solution of NaOH, NaHCO3, or Na2CO3, and evaporation of the solvent.

IT **143482-00-2P 143482-02-4P**
RL: IMF (Industrial manufacture); PREP (Preparation)
(manufacturing surface-active sodium sulfate derivs. of 2,5-di- and 2,2,5-trisubstituted 5-hydroxymethyl-1,3-dioxanes)

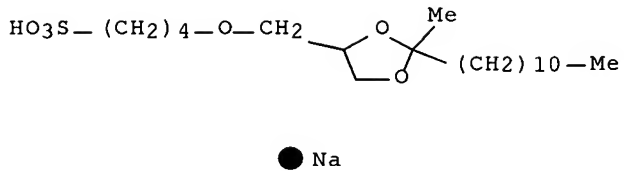
RN 143482-00-2 CAPLUS
CN 1,3-Dioxane-5-methanol, 2-heptyl-5-methyl-, hydrogen sulfate, sodium salt (9CI) (CA INDEX NAME)



RN 143482-02-4 CAPLUS
CN 1,3-Dioxane-5-methanol, 5-methyl-2-undecyl-, hydrogen sulfate, sodium salt (9CI) (CA INDEX NAME)

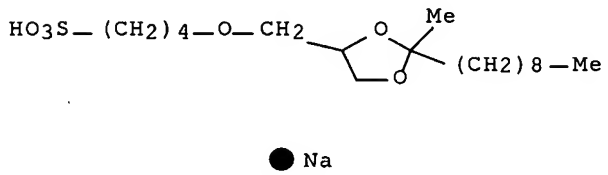


L22 ANSWER 29 OF 47 CAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 1994:194530 CAPLUS Full-text
DOCUMENT NUMBER: 120:194530
TITLE: Studies on synthesis and properties of surfactants with specific functions
AUTHOR(S): Yamamura, Shingo
CORPORATE SOURCE: Osaka Munic. Tech. Res. Inst., Osaka, 536, Japan
SOURCE: Yukagaku (**1994**), 43(1), 2-9
CODEN: YKGKAM; ISSN: 0513-398X
DOCUMENT TYPE: Journal
LANGUAGE: Japanese
ED Entered STN: 16 Apr 1994
AB Novel surfactants with specific functions were synthesized from inexpensive, com. available bulk chems. by convenient synthetic methods. All were characterized by features such as chemical degradability, catalytic activity for a halide displacement reaction (Finkelstein reaction), ability to disperse lime soap, and complex with alkali metal cations. Applications for emulsion polymerization, surface-active properties, stability consts. of complexes with alkali metal ions, and solubilization of alkali metal picrates in organic solvents were studied.
IT **138487-16-8P 138487-17-9P 138487-18-0P**
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation and surfactant properties of)
RN 138487-16-8 CAPLUS
CN 1-Butanesulfonic acid, 4-[(2-methyl-2-undecyl-1,3-dioxolan-4-yl)methoxy]-, sodium salt (9CI) (CA INDEX NAME)



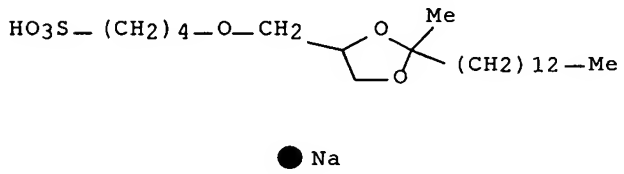
● Na

RN 138487-17-9 CAPLUS
CN 1-Butanesulfonic acid, 4-[(2-methyl-2-nonyl-1,3-dioxolan-4-yl)methoxy]-, sodium salt (9CI) (CA INDEX NAME)



● Na

RN 138487-18-0 CAPLUS
CN 1-Butanesulfonic acid, 4-[(2-methyl-2-tridecyl-1,3-dioxolan-4-yl)methoxy]-, sodium salt (9CI) (CA INDEX NAME)



● Na

L22 ANSWER 30 OF 47 CAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 1993:194040 CAPLUS Full-text
DOCUMENT NUMBER: 118:194040
TITLE: Synthesis and characterization of single-chain second generation cleavable surfactants
AUTHOR(S): Jaeger, David A.; Sayed, Yasmin M.
CORPORATE SOURCE: Dep. Chem., Univ. Wyoming, Laramie, WY, 82071, USA
SOURCE: Journal of Organic Chemistry (**1993**), 58(9), 2619-27
CODEN: JOCEAH; ISSN: 0022-3263
DOCUMENT TYPE: Journal
LANGUAGE: English
OTHER SOURCE(S): CASREACT 118:194040
ED Entered STN: 14 May 1993
AB Three series of single-chain, second generation cleavable surfactants based on trans-[8-(2,2-dialkyl-5-octyl-1,3-dioxolan-4-yl)octane-2-sulfate (alkyl = Me, Et, Pr, Bu) were prepared They were characterized by critical micelle concentration, Krafft temperature, and dynamic laser light scattering

measurements. Acid-catalyzed hydrolysis of the surfactants gives (threo-9,10-dihydroxyoctadecyl)trimethylammonium methanesulfonate, Na and triethanolammonium threo-9,10-dihydroxyoctadecane-1-sulfate, and a dialkyl ketone. Cleavage of these surfactants thus gives another surfactant, with a higher critical micelle concentration, and a H2O-soluble neutral compound Triethanolammonium surfactants were .apprx.20 times more reactive than methanesulfonate surfactants.

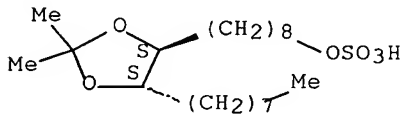
IT **146575-93-1P 146669-62-7P**
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation and surfactant properties of)

RN 146575-93-1 CAPLUS
CN 1,3-Dioxolane-4-octanol, 2,2-dimethyl-5-octyl-, hydrogen sulfate, trans-, compd. with 2,2',2''-nitrilotris[ethanol] (1:1) (9CI) (CA INDEX NAME)

CM 1

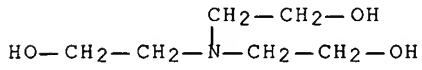
CRN 146575-92-0
CMF C21 H42 O6 S

Relative stereochemistry.



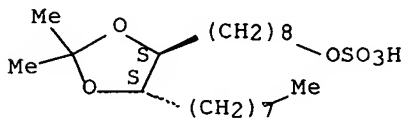
CM 2

CRN 102-71-6
CMF C6 H15 N O3

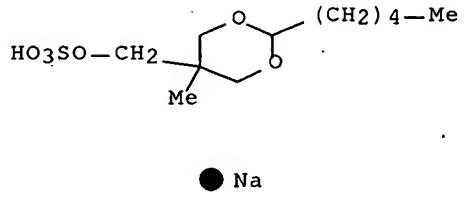


RN 146669-62-7 CAPLUS
CN 1,3-Dioxolane-4-octanol, 2,2-dimethyl-5-octyl-, hydrogen sulfate, sodium salt, trans- (9CI) (CA INDEX NAME)

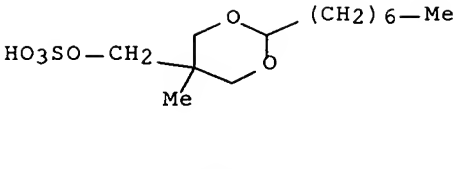
Relative stereochemistry.



L22 ANSWER 31 OF 47 CAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 1992:533335 CAPLUS Full-text
DOCUMENT NUMBER: 117:133335
TITLE: Chemical structure and surface activity. XXV. Synthesis and surface properties of chemodegradable anionic surfactants: sodium salts of sulfated 2-n-alkyl-5-hydroxymethyl-5-methyl-1,3-dioxanes
AUTHOR(S): Sokolowski, Adam; Piasecki, Andrzej; Burczyk, Bogdan
CORPORATE SOURCE: Inst. Org. Polym. Technol., Tech. Univ. Wroclaw, Wroclaw, 50-370, Pol.
SOURCE: Journal of the American Oil Chemists' Society (**1992**), 69(7), 633-8
CODEN: JAOCA7; ISSN: 0003-021X
DOCUMENT TYPE: Journal
LANGUAGE: English
ED Entered STN: 04 Oct 1992
AB In acid-catalyzed reactions of Cn-alkanecarboxaldehydes (n = 5, 7, 9, 11) with MeC(CH2OH)3, 2-(n-alkyl)-5-(hydroxymethyl)-5-methyl-1,3-dioxanes were obtained. The dioxanes were sulfated with SO3·pyridine complex in dry CCl4 solution to obtain the title anionic surfactants. The surfactants could be readily hydrolyzed and oxidized to nonsurfactant compds. Phys. data and some surface properties, such as Krafft point, critical micelle concentration (CMC), surface tension of aqueous solution near CMC, and wetting and foaming properties, were determined The surfactants exhibited aqueous solution properties similar to those of the well-known [R(OCH2CH2)mOSO3Na]. The presence of the 5-methyl-1,3-dioxane moiety in the mols. introduced hydrophobic character comparable to the effect of three oxyethylene groups or of two methylene groups of the alkyl chain in [R(OCH2CH2)mOSO3Na] with equal R value.
IT **143481-99-6P 143482-00-2P 143482-01-3P 143482-02-4P**
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation and surfactant properties of)
RN 143481-99-6 CAPLUS
CN 1,3-Dioxane-5-methanol, 5-methyl-2-pentyl-, hydrogen sulfate, sodium salt (9CI) (CA INDEX NAME)

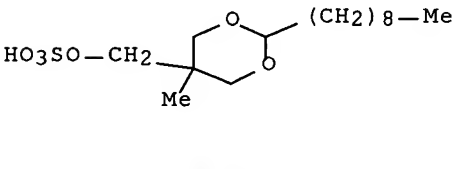


RN 143482-00-2 CAPLUS
CN 1,3-Dioxane-5-methanol, 2-heptyl-5-methyl-, hydrogen sulfate, sodium salt (9CI) (CA INDEX NAME)



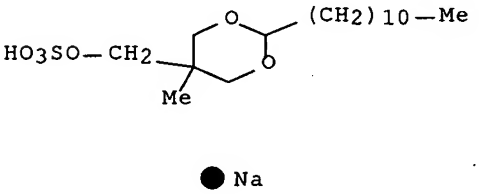
● Na

RN 143482-01-3 CAPLUS
CN 1,3-Dioxane-5-methanol, 5-methyl-2-nonyl-, hydrogen sulfate, sodium salt (9CI) (CA INDEX NAME)



● Na

RN 143482-02-4 CAPLUS
CN 1,3-Dioxane-5-methanol, 5-methyl-2-undecyl-, hydrogen sulfate, sodium salt (9CI) (CA INDEX NAME)



● Na

L22 ANSWER 32 OF 47 CAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 1992:215135 CAPLUS Full-text
DOCUMENT NUMBER: 116:215135
TITLE: Preparation of butadiene copolymers with low metal content
INVENTOR(S): Kasai, Kiyoshi; Sato, Hozumi; Takeda, Tokuji; Yamamura, Shingo; Nakamura, Masaki
PATENT ASSIGNEE(S): Japan Synthetic Rubber Co., Ltd., Japan; Osaka, City of
SOURCE: Jpn. Kokai Tokkyo Koho, 7 pp.
CODEN: JKXXAF
DOCUMENT TYPE: **Patent**
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

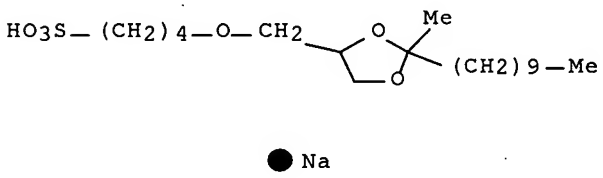
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE

JP 03281602 A 19911212 JP 1990-81148 19900330 <--
PRIORITY APPLN. INFO.: JP 1990-81148 19900330 <--
ED Entered STN: 31 May 1992

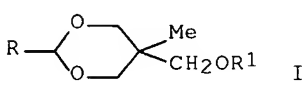
AB The title polymers having metal content ≤200 ppm, and useful in the electronic applications, are prepared by emulsion polymerization in the presence of acid-hydrolyzable surfactants bearing 1,3-dioxolane rings. Thus, emulsion polymerization of 65 parts butadiene with 35 parts acrylonitrile in the presence of 2 parts 2-methyl-2-undecyl-3-carboxy-5-methyl-1,3-dioxolane Na salt (I), and 0.01 part Na hydroxymethanesulfonate and treating the resulting polymer emulsions with 1% HCl gave polymers containing 15 ppm Na, vs 120 for polymers prepared without I.

IT **141186-39-2**
RL: USES (Uses)
(surfactants, for manufacture of butadiene copolymers with low metal content)

RN 141186-39-2 CAPLUS
CN 1-Butanesulfonic acid, 4-[(2-decyl-2-methyl-1,3-dioxolan-4-yl)methoxy]-, sodium salt (9CI) (CA INDEX NAME)



L22 ANSWER 33 OF 47 CAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 1992:151685 CAPLUS Full-text
DOCUMENT NUMBER: 116:151685
TITLE: Acetals and ethers. XXI. Preparation of diastereomerically pure sodium salts of sulfated 2-n-alkyl-5-hydroxymethyl-5-methyl-1,3-dioxanes
AUTHOR(S): Piasecki, Andrzej
CORPORATE SOURCE: Inst. Org. Polym. Technol., Tech. Univ. Wroclaw, Wroclaw, 50-370, Pol.
SOURCE: Synthetic Communications (**1992**), 22(3), 445-51
CODEN: SYNCAV; ISSN: 0039-7911
DOCUMENT TYPE: Journal
LANGUAGE: English
OTHER SOURCE(S): CASREACT 116:151685
ED Entered STN: 17 Apr 1992
GI



I

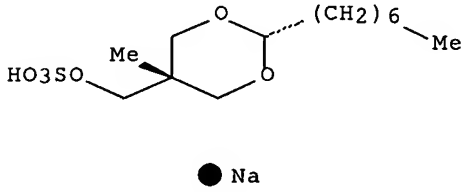
AB cis-, trans- Or a mixture of cis- and trans-(hydroxymethyl)dioxanes I [R = 4-MeC6H4, Me(CH2)6, Me(CH2)8, Me(CH2)10, R1 = H] were sulfated with sulfur trioxide-pyridine complex in CCl4/pyridine to give I (R1 = SO3Na) as the pure cis- or trans-isomers.

IT **139888-69-0P 139888-70-3P 139888-71-4P**
139888-72-5P
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of)

RN 139888-69-0 CAPLUS

CN 1,3-Dioxane-5-methanol, 2-heptyl-5-methyl-, hydrogen sulfate, sodium salt, cis- (9CI) (CA INDEX NAME)

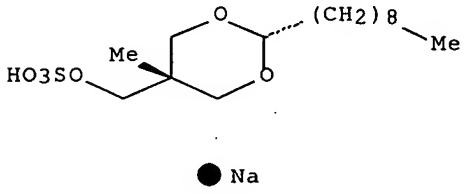
Relative stereochemistry.



RN 139888-70-3 CAPLUS

CN 1,3-Dioxane-5-methanol, 5-methyl-2-nonyl-, hydrogen sulfate, sodium salt, cis- (9CI) (CA INDEX NAME)

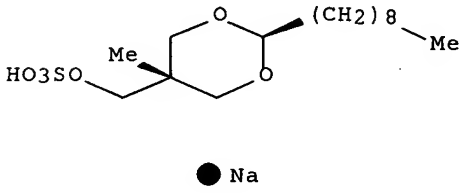
Relative stereochemistry.



RN 139888-71-4 CAPLUS

CN 1,3-Dioxane-5-methanol, 5-methyl-2-nonyl-, hydrogen sulfate, sodium salt, trans- (9CI) (CA INDEX NAME)

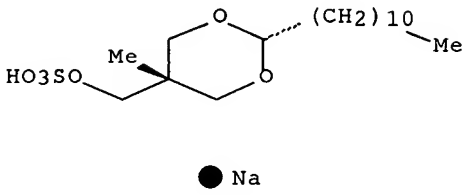
Relative stereochemistry.



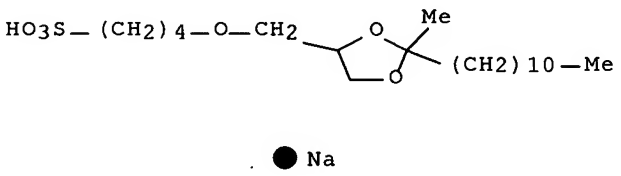
RN 139888-72-5 CAPLUS

CN 1,3-Dioxane-5-methanol, 5-methyl-2-undecyl-, hydrogen sulfate, sodium salt, cis- (9CI) (CA INDEX NAME)

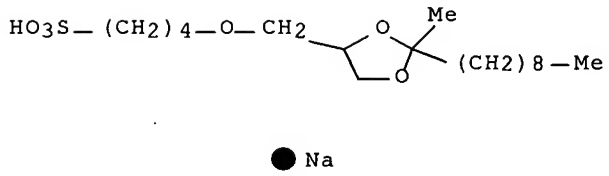
Relative stereochemistry.



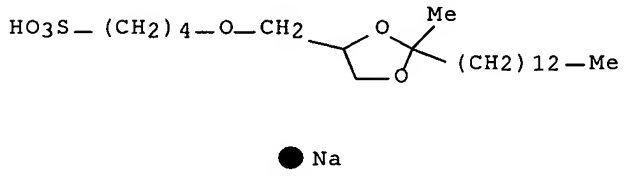
L22 ANSWER 34 OF 47 CAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 1992:62074 CAPLUS Full-text
DOCUMENT NUMBER: 116:62074
TITLE: Synthesis and properties of destructible anionic surfactants with a 1,3-dioxolane ring and their use as emulsifier for emulsion polymerization
AUTHOR(S): Yamamura, Shingo; Nakamura, Masaki; Kasai, Kiyoshi; Sato, Hozumi; Takeda, Tokuji
CORPORATE SOURCE: Osaka Munic. Tech. Res. Inst., Osaka, 536, Japan
SOURCE: Yukagaku (**1991**), 40(11), 1002-6
CODEN: YKGKAM; ISSN: 0513-398X
DOCUMENT TYPE: Journal
LANGUAGE: English
ED Entered STN: 21 Feb 1992
AB Degradable anionic surfactants with a 1,3-dioxolane ring were prepared and their surface properties determined These surfactants contain a sulfonate group as the anionic hydrophile, and readily decompose under weakly acidic conditions. As surfactants for emulsion polymerization reactions, they are considerably superior to the conventional surfactants which give polymers containing higher contents of metals than the above surfactants.
IT **138487-16-8P 138487-17-9P 138487-18-0P**
RL: SPN (Synthetic preparation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(surfactants, preparation and surface properties of)
RN 138487-16-8 CAPLUS
CN 1-Butanesulfonic acid, 4-[(2-methyl-2-undecyl-1,3-dioxolan-4-yl)methoxy]-, sodium salt (9CI) (CA INDEX NAME)



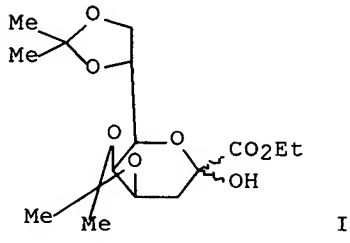
RN 138487-17-9 CAPLUS
CN 1-Butanesulfonic acid, 4-[(2-methyl-2-nonyl-1,3-dioxolan-4-yl)methoxy]-, sodium salt (9CI) (CA INDEX NAME)



RN 138487-18-0 CAPLUS
CN 1-Butanesulfonic acid, 4-[(2-methyl-2-tridecyl-1,3-dioxolan-4-yl)methoxy]-, sodium salt (9CI) (CA INDEX NAME)



L22 ANSWER 35 OF 47 CAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 1990:235732 CAPLUS Full-text
DOCUMENT NUMBER: 112:235732
TITLE: An efficient route to 3-deoxy-D-manno-2-octulosonic acid (KDO) derivatives via a 1,4-cyclic sulfate approach
AUTHOR(S): Van der Klein, P. A. M.; Boons, G. J. P. H.; Veeneman, G. H.; Van der Marel, G. A.; Van Boom, J. H.
CORPORATE SOURCE: Gorlaeus Lab., Leiden, 2300 RA, Neth.
SOURCE: Tetrahedron Letters (**1989**), 30(40), 5477-80
CODEN: TELEAY; ISSN: 0040-4039
DOCUMENT TYPE: Journal
LANGUAGE: English
OTHER SOURCE(S): CASREACT 112:235732
ED Entered STN: 23 Jun 1990
GI



I

AB Treatment of 2,3:5,6-di-O-isopropylidene-D-mannitol with thionyl chloride followed by oxidation gave the resp. 1,4-cyclic sulfate. Ring opening of the

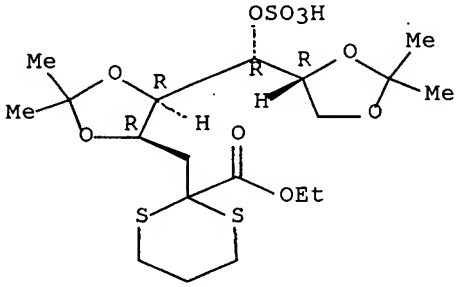
cyclic sulfate with the anion of Et 1,3-dithiane-2-carboxylate, and subsequent acidolysis and unmaksing of the thioketal, afforded KDO derivative I in an excellent yield.

IT **127244-79-5P**
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation and hydrolysis of)

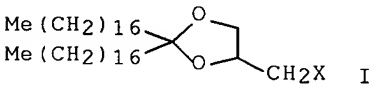
RN 127244-79-5 CAPLUS

CN D-manno-2-Octulosonic acid, 3-deoxy-4,5:7,8-bis-O-(1-methylethylidene)-, ethyl ester, cyclic 2-(1,3-propanediyl dithioacetal), hydrogen sulfate (9CI) (CA INDEX NAME)

Absolute stereochemistry.



L22 ANSWER 36 OF 47 CAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 1989:156549 CAPLUS Full-text
DOCUMENT NUMBER: 110:156549
TITLE: Preparation and characterization of glycerol-based cleavable surfactants and derived vesicles
AUTHOR(S): Jaeger, David A.; Jamrozik, Janusz; Golich, Timothy G.; Clennan, Malgorzata Wegrzyn; Mohebalian, Jamshid
CORPORATE SOURCE: Dep. Chem., Univ. Wyoming, Laramie, WY, 82071, USA
SOURCE: Journal of the American Chemical Society (**1989**), 111(8), 3001-6
CODEN: JACSAT; ISSN: 0002-7863
DOCUMENT TYPE: Journal
LANGUAGE: English
ED Entered STN: 30 Apr 1989
GI



I

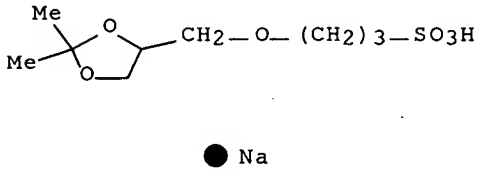
AB Vesicles of I [X = N+Me3 MeSO3- (II); X = N+Me3 Br- (III); and X = O(CH2)3SO3-Na+ (IV)] were prepared by sonication and characterized by 1H NMR line width narrowing, dynamic laser light scattering, DSC, and dye entrapment and leakage studies. In vesicular form, the hydrolytic stability of IV was greater than that of II/III, due to a combination of electrostatic effects resulting from the different substituents on the dioxolane ring. Neutral organic compds.

could be readily isolated from vesicular solns. of IV after its hydrolysis. Thus, IV was appropriate for the application of vesicular media to preparative chemical I (X = N+Me2(CH2)3SO3-) was prepared but did not readily disperse in water upon sonication.

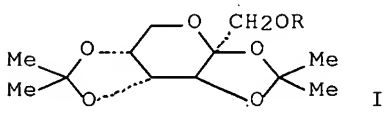
IT **119296-62-7P**
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation and hydrolysis of)

RN 119296-62-7 CAPLUS

CN 1-Propanesulfonic acid, 3-[(2,2-dimethyl-1,3-dioxolan-4-yl)methoxy]-, sodium salt (9CI) (CA INDEX NAME)



L22 ANSWER 37 OF 47 CAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 1987:156782 CAPLUS Full-text
DOCUMENT NUMBER: 106:156782
TITLE: Anticonvulsant O-alkyl sulfamates. 2,3:4,5-Bis-O-(1-methylethylidene)-β-D-fructopyranose sulfamate and related compounds
AUTHOR(S): Maryanoff, Bruce E.; Nortey, Samuel O.; Gardocki, Joseph F.; Shank, Richard P.; Dodgson, Susanna P.
CORPORATE SOURCE: Dep. Chem. Biol. Res., McNeil Pharm., Spring House, PA, 19477, USA
SOURCE: Journal of Medicinal Chemistry (**1987**), 30(5), 880-7
CODEN: JMCMAR; ISSN: 0022-2623
DOCUMENT TYPE: Journal
LANGUAGE: English
OTHER SOURCE(S): CASREACT 106:156782
ED Entered STN: 15 May 1987
GI



I

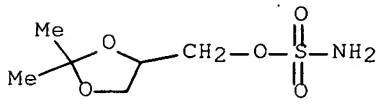
AB The title compound [I; R = SO2NH2, topiramate, (II)], its analogs and related compds. were prepared mostly from the corresponding alcs. by either (1) treating the alc. with the appropriate sulfamoyl chloride in the presence of NaH, or (2) treating the alc. with SO2Cl2 in the presence of pyridine and treating the resultant chlorosulfate with an appropriate amine, or (3) treating the alc.-derived chlorosulfate with NaCN and reducing the resulting

azidosulfate with Cu in MeOH or by catalytic hydrogenation with PdlC. Thus, fructopyranose I (R = H) was treated with NaH and NH2SO2Cl in DMF to give 46% II. Most of the compds. prepared were tested for anticonvulsant activity. II showed potent anticonvulsant activity analogous to that of phenytoin. Structure-activity relationship is discussed.

IT **103596-21-0P**
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(preparation and anticonvulsant activity of)

RN 103596-21-0 CAPLUS

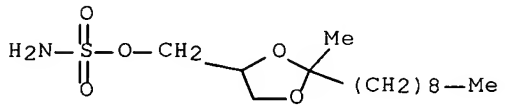
CN Sulfamic acid, (2,2-dimethyl-1,3-dioxolan-4-yl)methyl ester (CA INDEX NAME)



IT **103596-22-1P**
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of)

RN 103596-22-1 CAPLUS

CN Sulfamic acid, (2-methyl-2-nonyl-1,3-dioxolan-4-yl)methyl ester (9CI) (CA INDEX NAME)



L22 ANSWER 38 OF 47 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 1986:478920 CAPLUS Full-text

DOCUMENT NUMBER: 105:78920

TITLE: Anticonvulsant dioxolanemethyl sulfamates

INVENTOR(S): Maryanoff, Bruce E.; Nortey, Samuel O.

PATENT ASSIGNEE(S): McNeilab, Inc., USA

SOURCE: U.S., 5 pp.
CODEN: USXXAM

DOCUMENT TYPE: **Patent**

LANGUAGE: English

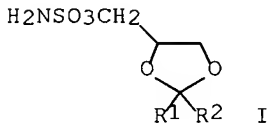
FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 4591601	A	19860527	US 1985-722869	19850412 <--
JP 61263973	A	19861121	JP 1986-80274	19860409 <--
ES 553874	A1	19880101	ES 1986-553874	19860410 <--
CA 1252109	A1	19890404	CA 1986-506299	19860410 <--

DK 8601675	A	19861013	DK 1986-1675		19860411 <--
AU 8656010	A	19861016	AU 1986-56010		19860411 <--
AU 579463	B2	19881124			
EP 198686	A2	19861022	EP 1986-302703		19860411 <--
EP 198686	A3	19871021			
R: AT, BE, CH, DE, FR, GB, IT, LI, LU, NL, SE					
ZA 8602744	A	19871125	ZA 1986-2744		19860411 <--

PRIORITY APPLN. INFO.: US 1985-722869 A 19850412 <--
OTHER SOURCE(S): CASREACT 105:78920; MARPAT 105:78920
ED Entered STN: 06 Sep 1986
GI

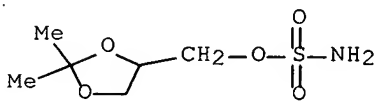


I

AB Title compds. I (R1, R2 = alkyl; R1R2 = alkylene), useful as anticonvulsants, were prepared 2,2-Dimethyl-1,3-dioxolane-4-methanol was treated with NaH and H2NSO2Cl in DMF to give I (R1 = R2 = Me), which blocked the tonic extensor seizure caused by application of an elec. shock to mice via corneal electrodes with ED50 = 104.9 mg/kg, i.p.

IT **103596-21-0P 103596-23-2P**
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(preparation of, as anticonvulsant)

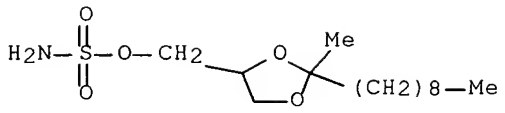
RN 103596-21-0 CAPLUS
CN Sulfamic acid, (2,2-dimethyl-1,3-dioxolan-4-yl)methyl ester (CA INDEX NAME)



RN 103596-23-2 CAPLUS
CN Sulfamic acid, (2-methyl-2-nonyl-1,3-dioxolan-4-yl)methyl ester, compd. with 2-undecanone (10:1) (9CI) (CA INDEX NAME)

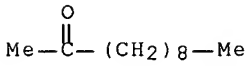
CM 1

CRN 103596-22-1
CMF C14 H29 N O5 S



CM 2

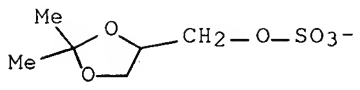
CRN 112-12-9
CMF C11 H22 O



L22 ANSWER 39 OF 47 CAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 1983:107200 CAPLUS Full-text
DOCUMENT NUMBER: 98:107200
TITLE: Cyanine dyes, new potent antitumor agents
AUTHOR(S): Minami, Isao; Kozai, Yoshio; Nomura, Hiroaki; Tashiro, Tazuko
CORPORATE SOURCE: Cent. Res. Div., Takeda Chem. Ind. Ltd., Osaka, 532, Japan
SOURCE: Chemical & Pharmaceutical Bulletin (**1982**), 30(9), 3106-20
CODEN: CPBTAL; ISSN: 0009-2363
DOCUMENT TYPE: Journal
LANGUAGE: English
OTHER SOURCE(S): CASREACT 98:107200
ED Entered STN: 12 May 1984
AB A number of cyanines with mono-, di- and tricyclic nuclei, merocyanines and oxonols were prepared and screened for antitumor activity against P388 leukemia and B16 melanoma. Among these compds., monomethin-, trimethin- and pentamethincyanines having naphthothiazole, naphthoxazole, and benzindole nuclei significantly prolonged the survival time of tumor-bearing mice. Replacement of the conjugated chain system between the 2 nuclei with a saturated aliphatic chain produced a marked decrease in the antitumor activity. Structure-activity relationships are discussed.
IT **84834-19-5P**
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation and reaction of, with methlthionaphthothiazolium salt)
RN 84834-19-5 CAPLUS
CN Naphtho[2,1-d]thiazolium, 3-[(2,2-dimethyl-1,3-dioxolan-4-yl)methyl]-2-methyl-, (2,2-dimethyl-1,3-dioxolan-4-yl)methyl sulfate (9CI) (CA INDEX NAME)

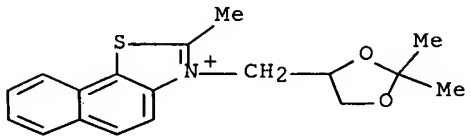
CM 1

CRN 84834-18-4
CMF C6 H11 O6 S



CM 2

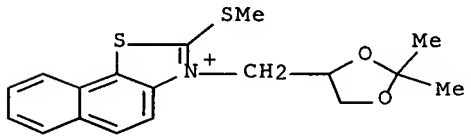
CRN 84834-17-3
CMF C18 H20 N O2 S



IT **84846-66-2P**
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation and reaction of, with methylnaphthothiazolium salt)
RN 84846-66-2 CAPLUS
CN Naphtho[2,1-d]thiazolium, 3-[(2,2-dimethyl-1,3-dioxolan-4-yl)methyl]-2-(methylthio)-, (2,2-dimethyl-1,3-dioxolan-4-yl)methyl sulfate (9CI) (CA INDEX NAME)

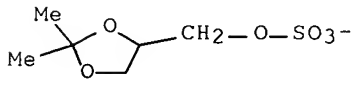
CM 1

CRN 84846-65-1
CMF C18 H20 N O2 S2

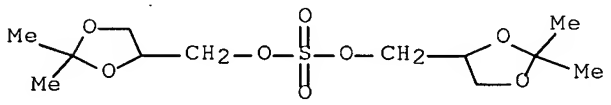


CM 2

CRN 84834-18-4
CMF C6 H11 O6 S



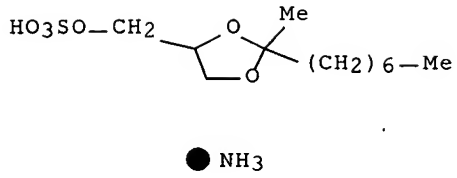
IT **84833-76-1P**
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation and reaction of, with naphthothiazoles)
RN 84833-76-1 CAPLUS
CN 1,3-Dioxolane-4-methanol, 2,2-dimethyl-, sulfate (2:1) (9CI) (CA INDEX NAME)



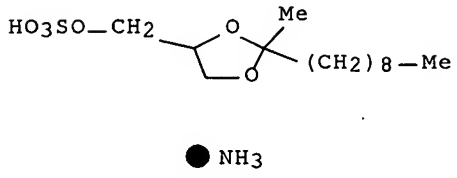
L22 ANSWER 40 OF 47 CAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 1976:407606 CAPLUS Full-text
DOCUMENT NUMBER: 85:7606
TITLE: Dioxolane derivatives having surfactant properties
INVENTOR(S): McCoy, David R.
PATENT ASSIGNEE(S): Texaco Inc., USA
SOURCE: U.S., 6 pp.
CODEN: USXXAM
DOCUMENT TYPE: **Patent**
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 2
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 3948953	A	19760406	US 1969-847729	19690805 <--
US 3909460	A	19750930	US 1973-387426	19730810 <--
PRIORITY APPLN. INFO.:			US 1969-847729	A2 19690805 <--

ED Entered STN: 12 May 1984
AB The reaction of glycerol [56-81-5] with C7-15 aliphatic ketones gave 2,2-dialkyl-4-hydroxymethyl-1,3-dioxolanes which were ethoxylated, sulfated (with 1:1 molar ClSO3H-Et2O [59263-80-8]), or phosphorylated with POCl3 to prepare surfactants with higher detergency than com. ethoxylated alcs. or sulfates of ethoxylated alcs. Thus, a mixture of glycerol 137, p-MeC6H4SO3H 5, benzene 500, and C10-15 aliphatic ketones 260 parts was heated 65 hr to prepare a mixture of 2,2-dialkyl-4-hydroxymethyl-1,3- dioxolanes which were mixed with 1% KOH and treated with ethylene oxide [75-21-8] (5.3 moles/mole dioxolane) to prepare a surfactant.
IT **59263-78-4 59263-79-5**
RL: USES (Uses)
(detergents)
RN 59263-78-4 CAPLUS
CN 1,3-Dioxolane-4-methanol, 2-heptyl-2-methyl-, hydrogen sulfate, ammonium salt (9CI) (CA INDEX NAME)



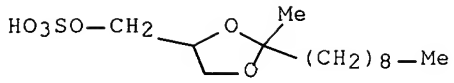
RN 59263-79-5 CAPLUS
CN 1,3-Dioxolane-4-methanol, 2-methyl-2-nonyl-, hydrogen sulfate, ammonium salt (9CI) (CA INDEX NAME)



L22 ANSWER 41 OF 47 CAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 1975:607840 CAPLUS Full-text
DOCUMENT NUMBER: 83:207840
TITLE: Detergent compositions containing dioxolanes as surfactants
INVENTOR(S): McCoy, David R.
PATENT ASSIGNEE(S): Texaco Inc., USA
SOURCE: U.S., 6 pp.
CODEN: USXXAM
DOCUMENT TYPE: **Patent**
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 2
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 3909460	A	19750930	US 1973-387426	19730810 <--
US 3948953	A	19760406	US 1969-847729	19690805 <--
PRIORITY APPLN. INFO.:			US 1969-847729 A2	19690805 <--

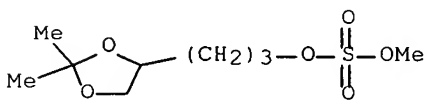
ED Entered STN: 12 May 1984
AB 2-Methyl-4-methylol-2-nonyl-1,3-dioxolane [6542-98-9] and similar 2,2-dialkyl 4-methylol-1,3-dioxolanes, prepared from glycerol [56-81-5] and C13-15 dialkyl ketones, were ethoxylated or sulfated to prepare surfactants with good solubility in water, good detergency in laundering, and light color. Thus, glycerol was condensed with C10-15 dialkyl ketones in benzene containing p-MeC6H4SO3H to prepare 2,2-dialkyl-4-methylol-1,3-dioxolanes which reacted with 5.2 moles ethylene oxide [75-21-8] to prepare a surfactant.
IT **57413-41-9**
RL: USES (Uses)
(detergents)
RN 57413-41-9 CAPLUS
CN 1,3-Dioxolane-4-methanol, 2-methyl-2-nonyl-, hydrogen sulfate (9CI) (CA INDEX NAME)



L22 ANSWER 42 OF 47 CAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 1972:564761 CAPLUS Full-text
DOCUMENT NUMBER: 77:164761
TITLE: ω-(4-Phenyl-1-piperazinyl)alkane-1,2-diols
INVENTOR(S): Hardie, Waldo Richard; Tankersley, Donald L.
PATENT ASSIGNEE(S): Cutter Laboratories Inc.
SOURCE: Ger. Offen., 16 pp.
CODEN: GWXXBX
DOCUMENT TYPE: **Patent**
LANGUAGE: German
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

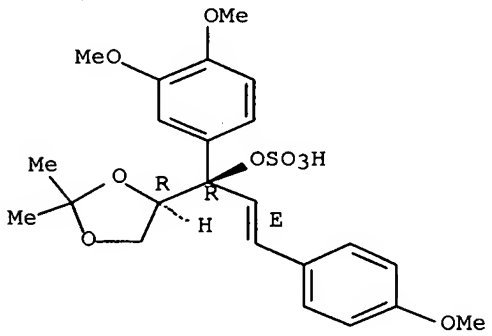
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
DE 2210752	A	19720921	DE 1972-2210752	19720306 <--
US 3770743	A	19731106	US 1971-122144	19710308 <--
FR 2128713	A5	19721020	FR 1972-7923	19720307 <--
FR 2128713	B1	19750801		
GB 1336547	A	19731107	GB 1972-10550	19720307 <--
CA 1003837	A1	19770118	CA 1972-136438	19720307 <--
PRIORITY APPLN. INFO.:			US 1971-122144 A	19710308 <--

ED Entered STN: 12 May 1984
GI For diagram(s), see printed CA Issue.
AB The title compds. [I, n = 3 (II), 4, 5] and (or) their salts with HCl or citric acid, useful as analgesics, spasmolytics, blood pressure lowering, and alpha adrenergic blocking drugs, were prepared by hydrolysis of the di-oxolanes (III, R = Me, Et; R1 = Me, Ph). Thus, HOCH2CH-(OH)(CH2)3OH was refluxed with Me2CO to give 3-(2,2-di-methyl-1,3-dioxolan-4- yl)propanol, which was esterified with MeSO2Cl to give 3-(2,2-dimethyl-1,3-dioxolan-4-yl)propyl meth-anesulfonate. This was heated with 1-phenylpiperazine to give III (R = R1 = Me), which was refluxed with concentrated HCl in EtOH to give II.2HCl.
IT **37939-45-0P**
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of)
RN 37939-45-0 CAPLUS
CN Sulfuric acid, 3-(2,2-dimethyl-1,3-dioxolan-4-yl)propyl methyl ester (9CI) (CA INDEX NAME)



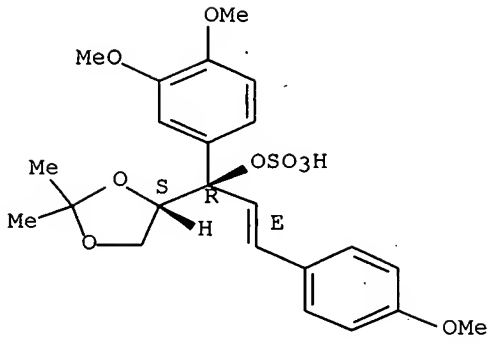
L22 ANSWER 43 OF 47 CAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 1972:551582 CAPLUS Full-text
DOCUMENT NUMBER: 77:151582
TITLE: Synthesis of (+-)-trimethylsequirin C alternative acid-catalyzed cyclization pathways for (+-)-trimethylsequirin C relatives
AUTHOR(S): Davies, R. V.; Whiting, D. A.
CORPORATE SOURCE: Dep. Chem., Univ. Nottingham, Nottingham, UK
SOURCE: Tetrahedron Letters (**1972**), (36), 3849-52
CODEN: TELEAY; ISSN: 0040-4039
DOCUMENT TYPE: Journal
LANGUAGE: English
ED Entered STN: 12 May 1984
GI For diagram(s), see printed CA Issue.
AB Trimethylsequirin C (I) was prepared by condensation of the dioxolane (II) with p-MeOC6H4C.tplbond.CH to give the acetylenic alc., which was reduced by LiAlH4 to the olefin (III; R = OH). Further reduction of III (R = OSO3H) gave III (R = H), which was hydrolyzed to I.
IT **38340-02-2 38340-22-6**
RL: RCT (Reactant); RACT (Reactant or reagent)
(reduction of)
RN 38340-02-2 CAPLUS
CN 1,3-Dioxolane-4-methanol, α-(3,4-dimethoxyphenyl)-α-[2-(4-methoxyphenyl)ethenyl]-2,2-dimethyl-, hydrogen sulfate, [R*,R*-(E)]- (9CI) (CA INDEX NAME)

Relative stereochemistry.
Double bond geometry as shown.

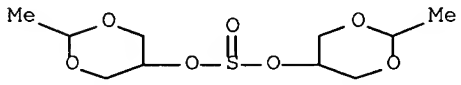


RN 38340-22-6 CAPLUS
CN 1,3-Dioxolane-4-methanol, α-(3,4-dimethoxyphenyl)-α-[2-(4-methoxyphenyl)ethenyl]-2,2-dimethyl-, hydrogen sulfate, [R*,S*-(E)]- (9CI) (CA INDEX NAME)

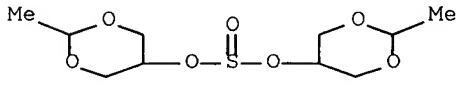
Relative stereochemistry.
Double bond geometry as shown.



L22 ANSWER 44 OF 47 CAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 1970:477158 CAPLUS Full-text
DOCUMENT NUMBER: 73:77158
TITLE: Cyclic glycerol acetals. III. Acetoxy-, chloro-, and benzoxyloxy acetals
AUTHOR(S): Gelas, Jacques
CORPORATE SOURCE: Lab. Chim. Org. 1, Fac. Sci., Clermont-Ferrand, Fr.
SOURCE: Bulletin de la Societe Chimique de France (**1970**), (6), 2349-54
CODEN: BSCFAS; ISSN: 0037-8968
DOCUMENT TYPE: Journal
LANGUAGE: French
ED Entered STN: 12 May 1984
GI For diagram(s), see printed CA Issue.
AB The acetylation, chlorination, and benzoylation reactions of I (R = OH) and II (R = OH) were examined I (R = OH) were treated with AcCl in pyridine to give the cis and trans isomers of I (R = OAc) while II (R = OH) similarly gave II (R = OAc). Similar treatment with SOCl2 gave III. I (R = Cl) and II (R = Cl), were obtained by acetylating glycerol monochlorohydrin. Benzoylation with BzCl in pyridine gave I (R = OBz) and II (R = OBz).
IT **15579-95-0P 15775-97-0P**
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of)
RN 15579-95-0 CAPLUS
CN m-Dioxan-5-ol, 2-methyl-, sulfite, cis- (8CI) (CA INDEX NAME)

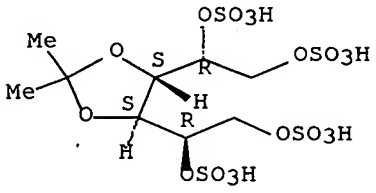


RN 15775-97-0 CAPLUS
CN m-Dioxan-5-ol, 2-methyl-, sulfite, trans- (8CI) (CA INDEX NAME)



L22 ANSWER 45 OF 47 CAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 1970:64983 CAPLUS Full-text
DOCUMENT NUMBER: 72:64983
TITLE: Cytostatic sugar alcohol derivatives
AUTHOR(S): Horvath, T.; Csanyi, E.; Vargha, L.
CORPORATE SOURCE: Inst. Arzneimittelforsch., Budapest, Hung.
SOURCE: Conf. Hung. Ther. Invest. Pharmacol., Soc. Pharmacol. Hung., 4th (**1968**), Meeting Date 1966, 289-94. Editor(s): Dumbovich, B. Akad. Kiado: Budapest, Hung.
CODEN: 21PFAR
DOCUMENT TYPE: Conference
LANGUAGE: German
ED Entered STN: 12 May 1984
AB The cytostatic activity of 1,2,5,6-tetramesyl-D-mannitol was lost when the hydroxyl groups at positions 3 and 4 were sulfonated. Other sulfonated sugar alcs. and thio-sugar alcs. were without activity. 1,6-Bis(phenylsulfonyl)-D-mannitol had activity which was lower than that of the analogous dimesyl compound
IT **28146-10-3**
RL: BIOL (Biological study)
(neoplasm inhibition in relation to)
RN 28146-10-3 CAPLUS
CN Mannitol, 3,4-O-isopropylidene-, 1,2,5,6-tetrakis(hydrogen sulfate), tetrasodium salt, D- (8CI) (CA INDEX NAME)

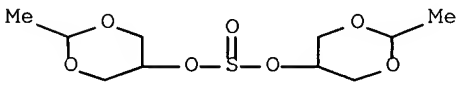
Absolute stereochemistry.



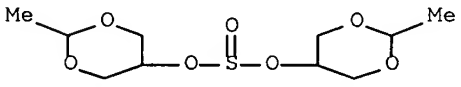
●4 Na

L22 ANSWER 46 OF 47 CAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 1967:473562 CAPLUS Full-text
DOCUMENT NUMBER: 67:73562
TITLE: Cyclic acetals of some glycerol chlorohydrins. Chlorination of glycerol cyclic acetals with thionyl chloride
AUTHOR(S): Gelas, Jacques; Rambaud, Rene
CORPORATE SOURCE: Fac. Sci., Clermont-Ferrand, Fr.
SOURCE: Comptes Rendus des Seances de l'Academie des Sciences, Serie C: Sciences Chimiques (**1967**), 264(21), 1700-3
CODEN: CHDCAQ; ISSN: 0567-6541
DOCUMENT TYPE: Journal
LANGUAGE: French

ED Entered STN: 12 May.1984
GI For diagram(s), see printed CA Issue.
AB Azeotropic distillation of the C6H6 solution of glycerol α-monohydrochloride and paraldehyde in the presence of p-HO3SC6H4Me gave cis-4-(chloromethyl)- 2-methyl-1,3-dioxolane (I) and the trans isomer (II), which could be differentiated by the N.M.R. spectra. The structure was determined by chlorination with SOCl2 in pyridine of the stereoisomeric hydroxyl compds. with known configuration. Acetalization of sym-glycerol hydrochloride with paraldehyde in the presence of p-HO3SC6H4Me gave cis-5-chloro-2- methyl-1,3-dioxane (III), b12 41°, d224 1.152, n22D 1.4375, and the trans isomer (IV), b12 75°, d224 1.195, n22D 1.4556. Chlorination with SOCl2 in pyridine of the 4 isomeric hydroxyl compds. formed from glycerol and paraldehyde gave I, II, III, and IV and the distillation residue gave V, m. 116-17°, and VI, m. 95-6° (petroleum ether-C6H6).
IT **15579-95-0P 15775-97-0P**
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of)
RN 15579-95-0 CAPLUS
CN m-Dioxan-5-ol, 2-methyl-, sulfite, cis- (8CI) (CA INDEX NAME)



RN 15775-97-0 CAPLUS
CN m-Dioxan-5-ol, 2-methyl-, sulfite, trans- (8CI) (CA INDEX NAME)



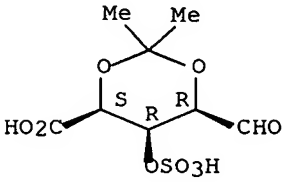
L22 ANSWER 47 OF 47 CAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 1932:18189 CAPLUS Full-text
DOCUMENT NUMBER: 26:18189
ORIGINAL REFERENCE NO.: 26:1900f-i
TITLE: Model experiments on the theory of alcoholic fermentation. VI. Oxidation of mono- and diacetoneglucose and of monoacetoneglucose-3-sulfuric acid
AUTHOR(S): Ohle, Heinz; Coutsicos, Georg; Gonzalez, Francisco Garcia y
SOURCE: Berichte der Deutschen Chemischen Gesellschaft [Abteilung] B: Abhandlungen (**1931**), 64B, 2810-3
CODEN: BDCBAD; ISSN: 0365-9488
DOCUMENT TYPE: Journal
LANGUAGE: Unavailable
ED Entered STN: 16 Dec 2001
AB It had been found that 3,6-anhydroacetoneglucose with KMnO4 in initially neutral solution gives considerable acetone-d-xyluronic acid (I).

Acetoneglucose (II) behaves in the same way and acetoneglucose-3-sulfuric acid (III) gives acetonexyluronic-3-sulfuric acid (IV). The introduction of the H2SO4 residue changes the behavior of II in the sense that 1 point of attack by the oxidizing agent, viz., the 3-HO group, is closed, but simultaneously the vulnerability of IV, as compared with the mother substance, is increased; with 2 and 6 atoms O, only 15 and 35%, resp., of the K salt of IV were obtained. In diacetoneglucose, the 3-HO group is the favored point of attack and only a little I is formed, as was indicated by the oxidation curve and confirmed by preparative expts. Optically active substances are still obtained with 12 atoms O; this indicates that the Me2C group is involved in the oxidation. The oxidation curve of diacetoneglucose-3-sulfuric acid (V) showed no great difference from the mother substance and no preparative expts. were run on this compound In the oxidation of these glucose derivs., then, there is neither a formation of stable hemiacetals nor a saccharinic acid rearrangement. K salt of I (28% from II and 2 N KMnO4 (4.5 atoms O) at room temperature [α]D20 -52.56° (water). K salt of V, prisms with 2.5 H2O from absolute EtOH-benzine, [α]D20 -13.17° (water, c 4.792), loses 2 mols. H2O in vacuo over P2O5 at 100° and then decomps. 185-95°. III is obtained by crystallizing the pyridine salt of V from alc. or decomposing the K salt with N H2SO4 at room temperature; its K salt shows [α]D20 -14.56° (water, c 7.013). Di-K salt of IV, needles with 2 H2O, [α]D20 (anhydrous) -36.94°, also obtained from the K salt of I with pyridinium-N-sulfonic acid in pyridine.

IT **879278-94-1P**, Xyluronic-3-sulfuric acid, acetone-, dipotassium salt **879278-96-3P**, Xyluronic-3-sulfuric acid, acetone-
RL: PREP (Preparation)
(preparation of)

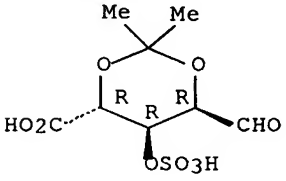
RN 879278-94-1 CAPLUS
CN Xyluronic-3-sulfuric acid, acetone-, dipotassium salt (3CI) (CA INDEX NAME)

Relative stereochemistry.



RN 879278-96-3 CAPLUS
CN Xyluronic-3-sulfuric acid, acetone- (3CI) (CA INDEX NAME)

Relative stereochemistry.



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